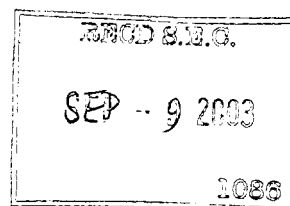


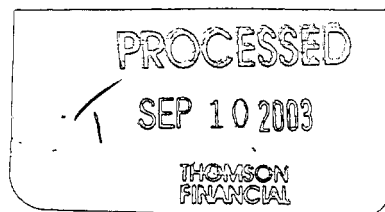


DeCODE  
genetics  
INC  
AR/S



PRE 12-31-02

## Annual Report 2002



## MISSION STATEMENT



### **DECODE IS DELIVERING ON THE PROMISE OF THE NEW GENETICS**

deCODE is using population genetics to create new and more effective means of diagnosing, treating and preventing common diseases. Our unique population resources provide us with unrivalled capabilities for identifying key genes and targets causally involved in a range of major public health challenges worldwide. We are employing these findings to develop drugs and DNA-based diagnostics aimed at the underlying biology of disease and disease predisposition, not just the signs and symptoms. We believe that our leadership in human genetics, together with our integrated capabilities in drug development, bioinformatics, pharmacogenomics and clinical trials, provide deCODE a strong competitive advantage for the creation of value for the company and our investors.

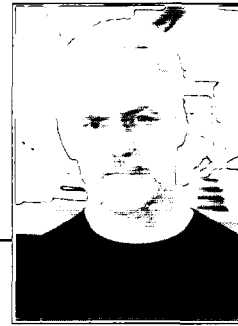


## SELECTED 2002 HIGHLIGHTS

- In January 2002, deCODE extended its alliance with Roche through a three-year agreement aimed at turning the achievements of the companies' 1998 gene discovery collaboration into novel therapeutics. Under the 1998 agreement, deCODE identified key genetic factors involved in ten major diseases: osteoarthritis, Alzheimer's disease, schizophrenia, peripheral arterial occlusive disease (PAOD), stroke, osteoporosis, obesity, anxiety, type 2 diabetes and rheumatoid arthritis. The new alliance leverages deCODE's expanded capabilities in drug discovery and development to focus on downstream research in a selection of four of the original ten diseases covered by the earlier agreement, including schizophrenia and stroke.
- In March 2002, deCODE acquired MediChem Life Sciences in a stock-for-stock transaction. The acquisition has been a key element in the implementation of deCODE's strategy to create and capture the greatest possible value from its discoveries in the genetics of common diseases.
- deCODE and Merck formed a major alliance to develop new treatments for obesity. We are combining research efforts in the genetics of obesity to identify, validate and prioritize a series of drug targets to take into development. The goal of the alliance is to accelerate the discovery of new drugs to fight obesity, one of the fastest-growing public health challenges in the industrialized world.
- deCODE formed a pharmacogenomics alliance with Pharmacia Corporation, under which deCODE has employed its population resources and Clinical Genome Miner™ system to find genetic markers that can be used to identify patients who are highly predisposed to progress from an early to an advanced form of heart disease.
- We formed a pharmacogenomics collaboration with Wyeth in respiratory disease, under which deCODE will use its expertise in *in vitro* pharmacogenomics to generate gene expression data related to one of Wyeth's candidate drugs.
- During 2002, our population genetics approach led us to the discovery of key genes and drug targets in myocardial infarction, hypertension, type 2 diabetes, osteoporosis and osteoarthritis. These discoveries have underscored our global leadership in gene discovery, and we are applying markers and drug targets identified through our work to our product development programs in diagnostics and drug discovery.
- Employing our world-leading capabilities in human genetics and genotyping, we published the highest density genetic map to date of the human genome. The map, which was employed by the Human Genome Project to correct its sequence of the human genome, consists of nearly 6,000 correctly ordered and placed microsatellite markers, and enables the accurate location of some 1.8 million SNPs.

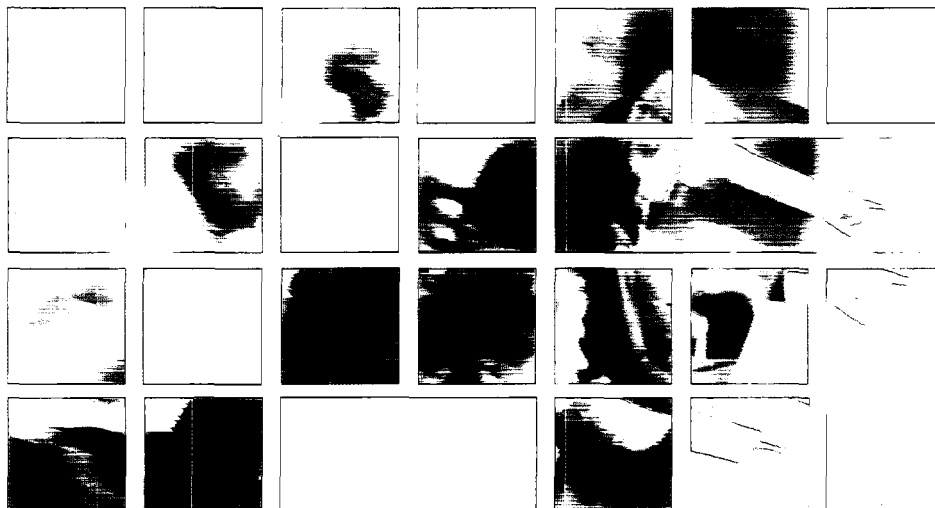


## PRESIDENT'S LETTER



### TO OUR SHAREHOLDERS

During the past year we made dramatic progress in the execution of our business strategy. From the beginning, our strategy has been both straightforward and ambitious: to identify the principal genetic factors in common diseases and to apply these discoveries to create and bring to market a new generation of diagnostics and drugs targeting the underlying biology of disease. Since the beginning of 2002 we have accelerated the pace of gene and target identification across our disease programs, at the same time acquiring key downstream capabilities for maximizing the value we create from our discovery engine. We have continued to increase revenue through new product-focused alliances, milestones from existing partnerships, and our growing service businesses, while significantly improving the cost structure of our operations. Building upon this solid financial footing, I believe we are well positioned to bring to market a range of products to improve the diagnosis, treatment and prevention of disease, and to capture for our shareholders the value we are creating through our leadership in human genetics.





## PRESIDENT'S LETTER

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### **INTEGRATED VALUE CREATION**

When we founded deCODE seven years ago, we created a company that was focused on applying our unique competence in human genetics and gene discovery to the development of products to improve healthcare. At the same time, we recognized the need to create a business capable of leveraging both upstream and downstream capabilities for the generation of near- and medium-term revenue with which to sustain our operations through the product development process. Market conditions over the past few years have underscored the value of this strategy. And from the beginning of 2002 we have taken important steps to build upon our core competence for both product development and for creating robust revenue streams going forward.

Our acquisition in early 2002 of MediChem Life Sciences — now our pharmaceuticals and biostructures groups — was a key advance in the implementation of our strategy. Through this acquisition we gained more than 100 chemists and state-of-the-art facilities for lead discovery and optimization, combinatorial, computational and medicinal chemistry, and for taking compounds all the way into the clinic. Our biostructures group, based in Seattle, is a pioneering outfit in protein crystallography and rational drug design, enabling us and our customers to visualize and understand how candidate compounds bind to their targets.

Having these capabilities in-house is already paying off in several ways. First, it has given us the ability to bring our targets downstream in the drug discovery process. Second, it has enabled us to form more beneficial alliances with major pharmaceutical partners. And third, both our pharmaceuticals and biostructures groups have provided us with vibrant service businesses and revenue streams. In short, we now have the know-how and facilities to take our breakthroughs further downstream, while at the same time generating income for the company.

## PRESIDENT'S LETTER

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Meanwhile, we continue to reinforce our position as the world's premier research organization in human genetics. With our population approach we have demonstrated our ability to identify the key genetic factors involved in just about any common disease to which we apply our resources. In the past year alone we have added to our list of successes genes and targets in myocardial infarction, hypertension, type 2 diabetes, osteoporosis and osteoarthritis. We have validated our findings in other populations and established that our targets are indeed bringing us into the basic biological pathways of human disease. All told, by the end of 2002 we had isolated 14 genes and targets in common diseases and located genes in more than two dozen conditions. This is a truly unrivalled record of achievement.

### **DRUG DISCOVERY AND DEVELOPMENT**

The progress we have made in our drug discovery efforts has been exciting and rapid. In our most advanced programs — stroke, schizophrenia and peripheral arterial occlusive disease (PAOD) — we have undertaken high-throughput screening and are advancing rapidly in identifying novel compounds against our targets. Indeed, the drug discovery process has confirmed the fundamental power of our approach. Our targets are not only yielding significant new information on the actual biological processes involved in the common diseases, but are giving us potentially powerful new entry points for therapeutic intervention. Although the drug discovery and development process continues to be a lengthy one, we believe we will file our first IND on a compound coming out of our pharmaceuticals group in 2004.

Our alliances with Roche and Merck are significant examples of the value of bringing together our achievements in population genetics with the drug discovery and development assets we acquired last year. These alliances offer deCODE the opportunity to spread the risk involved in drug discovery, while providing significant near-term funding and substantial royalties on new drugs that may emerge.

In early 2002 we extended our 1998 gene and drug discovery alliance with Roche. Under the 1998 agreement, our scientists identified key genetic factors involved in ten major diseases: osteoarthritis,



## PRESIDENT'S LETTER

Alzheimer's, schizophrenia, PAOD, stroke, osteoporosis, obesity, anxiety, type 2 diabetes and rheumatoid arthritis. The new alliance will increasingly focus drug discovery and development efforts on a selection of four of the diseases covered by the earlier agreement, and we will be carrying our targets through drug discovery in our pharmaceuticals group. We are already laying the groundwork for medicinal chemistry programs based upon leads coming out of our stroke and schizophrenia projects.

With Merck we are bringing to bear our findings in the human genetics of obesity, as well as the datamining power of our Clinical Genome Miner™ datamining system, with Merck's substantial animal and gene expression work in obesity. The strength of the alliance is that we are approaching this challenge from several angles but with one objective: to develop better treatments that combat the biology of obesity and not simply its manifestations. Under this agreement we are now validating very exciting targets and are looking forward to beginning drug discovery work.

It is also important to emphasize that our present therapeutics alliances cover only five out of the 50 diseases in our gene and target discovery programs. The rest of these programs, including those from our old alliance with Roche that have not been carried forward into the new agreement, comprise a broad portfolio of population-validated targets. This gives us ample scope for selecting programs for our internal drug discovery efforts and for establishing new therapeutics partnerships.

### **DIAGNOSTICS AND PERSONALIZED MEDICINE**

I believe deCODE is uniquely positioned to play a leading role in the development of DNA-based diagnostics and we are focused on accelerating our work to bring diagnostics to the market. Such tests offer an exciting and substantial commercial opportunity for the company for several reasons. First, the development of such tests is based upon the same target discovery work we are using for drug development, so we are able to monetize again our investment and achievements in genetics. Second, the development and approval time for diagnostic products is much shorter than it is for drugs, presenting the possibility of generating product revenue as early as 2004. Finally, we believe that the potential demand for such tests is large, and that they will be a key tool in the development of more personalized medicine within this decade.

## PRESIDENT'S LETTER

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The DNA diagnostics we are creating are aimed at making it possible for individuals to find out if they are at a significantly higher than average risk of developing specific common diseases. Working with their doctors, these individuals may thus be able to benefit from prevention strategies that can reduce the risk of a predisposition ever developing into a disease. Responsiveness to drugs is also heavily influenced by genetic factors, and pharmacogenomic tests — which gauge genetic predisposition to respond to specific drugs — enable doctors to prescribe medications best-suited to individual patients. Combining our population resources with our expertise in *in vitro* gene expression analysis, we have established our ability to identify key genes and markers that can accurately predict individual responsiveness to specific drugs.

In order to most effectively commercialize our work in DNA-based diagnostics, we have established alliances with major players in the industry. Our principal alliance in the field of diagnostics is with Roche Diagnostics, the global leader in the field. With Roche we are moving quickly to commercialize disease diagnostics in osteoporosis, stroke, and other indications. Together we plan to have our first diagnostic tests available by 2004.

### **SERVICE BUSINESSES**

One of our principal focuses over the past year has been to leverage the breadth of our product-oriented research and know-how to create service businesses that can serve as important and growing sources of near-term revenue. Here again the integration of our pharmaceuticals and biostructures groups has proved a key part in the pursuit of our overall strategy. In addition to pursuing work under our drug discovery alliances and proprietary programs, our pharmaceuticals group continues to conduct service work for a range of biotechnology and pharmaceutical companies. Our biostructures group is likewise engaged in both in-house and contract protein crystallography, as well as marketing a range of products for structural biology research. In early 2003, we installed at Astra Zeneca's principal research facilities our RoboHTC™ system, a robotics and informatics platform developed by our biostructures group for accelerating and enhancing the generation, storage, and analysis of the crystals of target proteins and protein-ligand complexes.

## PRESIDENT'S LETTER

Our wholly-owned pharmacogenomics and clinical trials subsidiary Encode is also attracting top-tier partners. In 2002 we formed an alliance with Pharmacia to identify genetic markers associated with likelihood of progression from early to more advanced stages of heart disease, information which may be useful in designing clinical trials. For Wyeth, we are using our *in vitro* expression expertise to analyze responsiveness to a candidate compound for the treatment of respiratory disease. Earlier this year, we also formed an alliance with Vertex Pharmaceuticals. Under this alliance, Encode is conducting a phase IIa clinical trial for Vertex's VX-148 treatment for psoriasis, and will be gathering and analyzing pharmacogenomic data as part of the clinical trials it will perform for Vertex. In all its partnerships, Encode is leveraging the unique ability to carry out population- and expression-based pharmacogenomic analysis on the same cohorts that are used for clinical trials.

Similarly, we are pursuing exciting opportunities for monetizing our investment, expertise and facilities for generating and analyzing vast amounts of genotypic and phenotypic data. Earlier this year, we formed an alliance with IBM to market our CGM Discovery™ system for identifying correlations between genetic variation and disease, mounted on IBM middleware and hardware. We believe that this alliance, which is backed by IBM's Life Science division's global marketing team, will provide a unique solution for customers such as research laboratories and healthcare providers who are striving to apply breakthroughs in genetics to better healthcare. We have also recently launched contract genotyping as a new facet of our service business. Here we are leveraging our leadership and unmatched capacity in this field to create additional revenue for the company and the highest quality results and analysis for public and private sector research laboratories around the world.

## PRESIDENT'S LETTER

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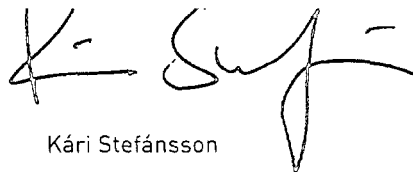
### **A GROWING BUSINESS**

By applying our unique resources and capabilities to both our product development and service businesses, we are expanding our revenue base and better positioning deCODE to reap the long-term upside from our leadership in human genetics.

In 2002, deCODE's revenue increased to \$41.1 million, from \$26.1 million the year before, and the company closed last year with \$93.2 million in total cash. At the same time as we have expanded our revenue base, we have also taken proactive measures to control costs. In September 2002 we put into place a plan aimed at streamlining our operations and positioning the company to run its current operations on revenue by the end of 2003. This underscores our commitment to ensure that deCODE has the resources to pursue its product development strategy. Our results in early 2003 demonstrate that we are on track to achieve this goal.

We are excited by our scientific and business achievements in 2002, and by the progress we have made in executing our product development strategy. Our track record in gene discovery is unmatched by any other research organization in the world, and our focus now and going forward is to apply these unique results to the creation of product-driven value for the company and for you, our shareholders. I look forward to sharing with you our progress and successes in the months and years ahead.

Yours sincerely,



Kári Stefánsson

President, Chairman and CEO  
deCODE genetics

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## FORM 10-K

Mark One

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2002

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OF 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File No. 000-30469

### deCODE genetics, Inc.

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

04-3326704  
(I.R.S. Employer  
Identification No.)

Sturlugata 8, Reykjavik, Iceland  
(Address of principal executive offices)

+ 354-570-1900

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

None

None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, \$.001 par value  
(Title of Class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is an accelerated filer (as defined by Rule 12b-2 of the Act). Yes ☒ No ☐

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant, based on the closing price of the common stock (\$4.68 per share), as of June 28, 2002, was \$217,747,123.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of March 1, 2003.

<u>Class</u>	<u>Number of Shares</u>
Common Stock, \$.001 par value	53,566,682

#### Documents incorporated by reference

The Proxy Statement to be filed with respect to the 2003 Annual Meeting of Stockholders is incorporated by reference into Part III.

## PART I

### Item 1. *Business*

#### Overview

Based in Reykjavik, Iceland, deCODE is a population genetics company developing drugs and DNA-based diagnostics based upon its discoveries in the inherited causes of common diseases. Our population approach and resources have enabled us to isolate genes and targets directly involved in the development of many of the biggest challenges to public health. We are focused on turning these findings into a pipeline of products which we believe will be able to combat the causes of disease, not just the signs and symptoms.

Our business is divided into two components: products and services. Our primary product focus is on the discovery and commercialization of novel therapeutics designed against targets identified in our population-based gene discovery work. Through the acquisition in 2002 of MediChem Life Sciences and its subsidiary, Emerald BioStructures, now our pharmaceuticals and biostructures groups, we have integrated capabilities for applying genetics findings to the development of drugs, both through our own programs and in alliance with corporate partners. We are also applying the links we have identified between genetic factors and disease to create DNA-based diagnostic and pharmacogenomic tests. We believe that such tests will become a standard part of healthcare within the coming decade, making it possible to gauge individual predisposition to particular illnesses and to design effective prevention strategies; to complement traditional clinical diagnosis; and to identify patients who are likely to respond or not respond to particular drugs. We are also marketing software systems we have developed for making correlations between genetic variation and disease and drug response.

Our service offerings include contract service businesses in drug discovery and medicinal chemistry, through our Chicago-based pharmaceuticals group; three-dimensional protein crystallography products and contract services, through our Seattle-based biostructures group; pharmacogenomics and clinical trials services, through our wholly-owned subsidiary Encode; database services, through subscriptions to our Clinical Genome Miner<sup>TM</sup> system integrating anonymized population data on disease, genotypes and genealogy; and genotyping services through our genotyping laboratory in Reykjavik.

In Iceland, we have comprehensive population resources that enable our scientists to efficiently conduct genome- and population-wide scans to identify key genes and gene variations contributing to complex diseases. These include a computerized genealogy database covering the entire Icelandic population and going back as far as 1100 years to the settlement of the country; genotypic and disease data from more than 90,000 volunteer participants in more than 50 different disease programs; one of the highest-throughput genotyping facilities in the world; and statistical algorithms and software programs for rapidly analyzing data from large numbers of individuals to identify genetic factors that correlate with disease. As of late 2002, we had mapped genes involved in more than two dozen common diseases and we are applying our discovery of key genes, disease pathways and drug targets to the development of drugs and diagnostics in many of these.

Along with our in-house programs in drug discovery and DNA-based diagnostic development, we have formed corporate alliances across our business. Our partners include Roche, Merck, Roche Diagnostics, IBM, Pharmacia, Wyeth, and Affymetrix.

In this report, references to we or us refer to deCODE genetics, Inc., our wholly-owned subsidiary, Islensk erfðagreining ehf., and its wholly-owned subsidiaries, including Encode ehf., an Icelandic private limited company. After the closing of the acquisition of MediChem Life Sciences Inc. (MediChem) on March 18th 2002 we or us also refers to MediChem, a wholly owned subsidiary of deCODE genetics, Inc., and to MediChem's wholly owned subsidiaries, including Emerald BioStructures. Dollar amounts are in thousands except share and per share amounts, unless otherwise noted.

deCODE was incorporated in Delaware in 1996. Our internet address is [www.decode.com](http://www.decode.com). We make available free of charge through our internet website our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with the Securities and Exchange Commission.



## Products

The products we are developing include drugs, DNA-based diagnostic tests, pharmacogenomic tests, and bioinformatics systems. Our drug and diagnostic development programs are based upon genes and related targets we have identified through our population genetics research in some 50 common diseases. We believe that these diseases represent large market opportunities for therapeutic and diagnostic products because their causes are not fully understood; current treatments are of limited effectiveness; there are currently no approaches to tailor treatment to cause; and large numbers of individuals are affected by these diseases.

Through the discovery of the principal genetic factors that predispose certain people to disease, we are able to gain an understanding of the key biological mechanisms involved in disease processes. Targets within the disease pathways can be used to develop DNA-based diagnostics for gauging disease predisposition, and to discover therapeutic compounds that may be able to disrupt the disease process by counteracting the basic mechanisms of disease. Utilizing our integrated population data and genotyping capabilities, we are able to efficiently conduct genome and population-wide scans for the inherited causes of disease in a virtually hypothesis-free manner.

We are pursuing the commercial development of our gene- and drug-target discovery programs through the development and marketing of drugs, DNA-based diagnostics, pharmacogenomic tests, and bioinformatics systems we have developed for making correlations between genetic variation and disease. We are pursuing this strategy through the application of our own resources to turn discoveries from our internal projects into therapeutic or diagnostic products and developing our own marketing capabilities; by licensing our discoveries to others who will be required to pay us royalties on sales of any products developed using the results of our gene discovery programs; and by entering into collaborative arrangements for the development and marketing of products from these programs.

Our acquisition in early 2002 of MediChem Life Sciences and Emerald BioStructures is a central element in our strategy to transform deCODE from a company focused on gene discovery into a biopharmaceutical company capable of creating and capturing the greatest possible value from its discovery capabilities. The acquisition has benefited us in three ways: enabling us to advance our in-house programs in drug discovery; enabling us to negotiate much more favorable terms in our alliances with pharmaceutical companies, in which we take our discoveries much further down the drug development process and receive a more significant share of revenues from sales of products that are developed; and providing us with a service business generating revenue in the short term and maintaining the infrastructure for conducting drug discovery work on several programs at once. At present, our pharmaceuticals group is focused mainly on conducting work on our targets in collaboration with our corporate partners and on drug discovery work for our fee-for-service customers.

## Gene Discovery

Our product development begins with gene discovery. We believe that we have an unrivalled track record in the identification of the inherited components of common diseases, and through these discoveries we are identifying novel markers for diagnostics and targets for drug development. A detailed description of our population approach to gene discovery can be found in the section "Population approach and resources" below, and a brief description of some of our discovery programs and achievements follows here.

*Autoimmune Diseases.* We are currently studying autoimmune diseases such as atopy, inflammatory bowel disease (Crohn's and ulcerative colitis), insulin-dependent diabetes, psoriasis, rheumatoid arthritis and ankylosing spondylitis. We have located genes in atopy, psoriasis and psoriatic arthritis, and rheumatoid arthritis.

*Cardiopulmonary Diseases.* We are studying a variety of common cardiovascular conditions, and have identified novel genes in stroke, myocardial infarction (heart attack), hypertension (high blood pressure), and peripheral arterial occlusive disease (PAOD). We have mapped genes in asthma and chronic obstructive pulmonary disease (COPD).

*Central Nervous System Diseases.* We are studying the genetic basis for psychiatric and central nervous system diseases including Alzheimer's disease, anxiety, bipolar disease/depression, familial essential tremor,

multiple sclerosis, Parkinson's disease, schizophrenia, autism, attention deficit and hyperactivity disorder, dyslexia, restless leg syndrome, and migraine. We have identified a strong link between schizophrenia and the Neuregulin 1 gene and confirmed this link in association studies in other populations. We have mapped genes in Alzheimer's disease, Parkinson's disease, anxiety disorder and depression, and familial essential tremor.

*Metabolic and Other Diseases and Conditions.* We have isolated genes in osteoarthritis, osteoporosis and non-insulin-dependent diabetes (NIDDM), and have mapped genes in obesity, familial combined hyperlipidemia, and longevity. We are also studying nocturnal enuresis.

*Eye Disease.* We are studying a range of eye diseases, including macular degeneration and myopia. We have mapped a gene linked to macular degeneration.

*Women's Health.* We are studying the genetic causes of women's health problems including endometriosis and pre-eclampsia. We have mapped a susceptibility gene for pre-eclampsia to chromosome 2p13.

*Cancer.* We are conducting research in many forms of cancer, including lung cancer, melanoma, renal cancer, colon cancer, testicular cancer, thyroid cancer, and prostate cancer. We have mapped a gene linked to benign prostatic hypertrophy.

### ***An Example of Our Approach: Schizophrenia***

Our work in schizophrenia offers one concrete example of how our population genetics approach is pointing the way towards the development of new, more effective drugs targeting the root biological causes of disease.

Schizophrenia is a chronic and progressive mental illness affecting between 0.5 and 1.0 percent of the adult population worldwide. Patients frequently suffer from delusions, hallucinations, and blunted emotions, and current treatments are effective only in alleviating some of these symptoms.

Our scientists established the link between schizophrenia and the Neuregulin 1 gene, located on the short arm of chromosome 8, through the analysis of detailed genotypic data from more than 800 volunteer patients and unaffected relatives from across Iceland. By analyzing this data in the context of our nationwide genealogy database, we were able to home in on a particular haplotype — a small segment of DNA that is inherited as a unit — within Neuregulin 1 that confers more than twice the average risk for developing schizophrenia. Data from association studies in Western European and Asian populations have confirmed the significant role of this and related haplotypes in schizophrenia in other populations. The findings are further supported by at least five previous international studies that offered suggestive linkage between schizophrenia and the region on the short arm of chromosome 8 containing the Neuregulin 1 gene.

Our subsequent functional studies in mice offer compelling additional evidence for the involvement of the Neuregulin 1 pathway in some of the major biological dysfunctions involved in schizophrenia. Neuregulin 1 is critical to the proper transmission of messages within the central nervous system and to the plasticity of neurons, an important factor in the way brain responds and adapts to experience and stimuli in the environment. Our scientists analyzed mice in which certain segments of the Neuregulin 1 or of one of its key receptors, ERB4, were knocked out, and found that the knockout mice exhibited behaviors and disruptions in normal neurotransmission similar to those seen in schizophrenics.

Using key proteins in the Neuregulin 1 pathway as drug targets, we are now working to discover new compounds that can help to correct the biological dysfunctions behind schizophrenia and thereby more effectively treat the disease. We have performed a high-throughput screen against one promising target to identify potentially useful therapeutic compounds. Under our alliance with Roche, we are continuing drug discovery work on the initial results from our compound screening at our Chicago-based pharmaceuticals group.

### ***Drug Discovery Pipeline***

The principal goal of our gene discovery work and the main focus of our product development strategy is to discover and bring to market new drugs to treat common diseases. In all of the diseases for which we have isolated genes we have identified "druggable" targets, that is, targets against which medicinal chemists have

proven that drugs can be made. These targets are either products of the genes themselves or are located within the pathways we have identified through our functional analyses of those genes.

Our most advanced drug discovery programs are in schizophrenia, stroke and PAOD. In each case we have isolated key disease genes through our population genetics research, conducted extensive functional work on our findings and identified drug targets within the disease pathways. We have also conducted high-throughput screens and identified lead series of compounds against targets in each of these diseases, and are working on identifying lead compounds at our pharmaceuticals group. Our schizophrenia and stroke programs are part of our drug discovery and development alliance with Roche, while our drug discovery program in PAOD is proprietary to deCODE. We aim to file our first investigational new drug application (IND) from these programs in 2004.

In our target discovery work on our findings in myocardial infarction and hypertension, we believe we may be able to bypass much of the drug discovery process and enter directly into phase II clinical trials as early as mid-2003. In both of these diseases, the genes we have isolated have led us to drug targets against which drugs have already been developed for other conditions. If we are able to license these compounds from the companies that developed them, we would be able to eliminate the customarily lengthy process of identifying leads and developing them into safe compounds and instead enter directly into clinical trials to test for the efficacy of compounds in treating these conditions.

### *Diagnostics*

DNA-based diagnostic tests represent a key element in the development of personalized medicine and a key additional avenue for creating value from our gene discoveries. Since pinpointing genetic variations linked to disease involves the identification of genetic markers of disease susceptibility, we can apply the same findings we employ in our drug discovery efforts to the development of diagnostics tests.

We believe that such tests will become an integral part of health care within the next ten years. In the clinic, physicians will be able to use these tests to diagnose disease as early and as accurately as possible, making it possible to implement more timely and effective treatment. Moreover, by understanding which individuals are highly predisposed towards a certain disease, doctors may be able to assist patients in developing effective disease prevention strategies that can help them to stay healthy. For example, a DNA-based diagnostic test for stroke would enable individuals to find out if they are at a particularly high risk of developing a stroke. Those who were could work with their doctors to develop prevention strategies that could reduce the risk of the predisposition ever developing into disease. These strategies could include changes in diet and lifestyle, as well as the use of effective available treatments for leading risk factors such as high blood pressure and high cholesterol.

In 2001, we established a partnership with Roche Diagnostics to develop and market DNA-based diagnostics for common diseases. One of our most advanced programs is in osteoporosis, where we have identified a series of seven SNPs (genetic variations know as single nucleotide polymorphisms) within a gene on chromosome 20 that can be used to identify individuals who are at a nearly threefold average increased risk of developing osteoporosis. We are also advancing in our programs in stroke, type 2 diabetes and several other major diseases. We hope to be able to offer our first DNA-based diagnostic test under this alliance in 2004.

### *Pharmacogenomics*

We are developing and plan to market pharmacogenomic tests that can, by analyzing genetic markers, identify individuals who are likely to respond well to specific drugs. We believe that such tests will become another important element in the realization of personalized medicine and a standard part of the prescription process. The potential applications and benefits of this technology are many. It may lead to tailor-made treatments, maximizing efficacy and minimizing side effects. The use of pharmacogenomic tests may also lead to faster and more successful clinical trials, which may reduce the time and cost involved in developing new drugs. Similarly, such tests may enable pharmaceutical companies to explore the use of existing compounds which may have been abandoned as investigational drugs because they were only effective a small subgroup of patients.

We have two capabilities for identifying the genetic basis of drug response. Through our wholly-owned pharmacogenomics and clinical trials subsidiary Encode we use *in vitro* expression profiling to prospectively identify responders and non-responders. In this process, we establish clinical drug response baselines by administering a drug of interest to patients in a small clinical trial. Specimens such as peripheral blood mononuclear cells are obtained to develop an *in vitro* model of response from these patients. The specimens are challenged with or without drug, and gene expression profiles are derived using gene-array technology. We then apply proprietary algorithms to select a panel of differentially expressed genes that most accurately predicts the clinical response to the drug under investigation. We are further able to examine these genes for polymorphisms, such as SNPs, which correlate with responsiveness to a given drug and which can thus be used to design a DNA-based predictive test.

We can complement this approach by using our population resources in the same way that we would in our gene studies, but using drug response, rather than disease, as the trait we wish to analyze. We utilize our genealogical database and proprietary bioinformatic tools to cluster drug responders and non-responders into extended families. Patients are genotyped to identify the linkage between genetic variations and drug response. These results can be combined with the results of *in vitro* profiling to contribute to the selection of the most informative gene expression patterns.

As a proof of principle, we have developed an assay that can, by measuring expression levels in a set of eight genes, predict responsiveness to glucocorticoid treatments for asthma with an accuracy of approximately 90%. Through our partnership with Affymetrix, we have developed accurate and efficient assays for identifying responders and non-responders to several popular brand-name drugs used in treating many common conditions.

### **Informatics**

We have developed statistical and data mining tools to generate, assemble and analyze our vast sets of genealogical, disease and genotypic information. We believe we have unique informatics tools for utilizing large datasets to identify correlations between genetic variation and disease, and we are now attempting to capture additional value from our investments in informatics by commercializing these tools for use by other research organizations.

Our principal informatics product is the Clinical Genome Miner Discovery™ system, which we are marketing in alliance with IBM. CGM Discovery™ is a computer based application for sale to customers and which can be used for isolating and analyzing genes and gene variations associated with particular diseases. It includes the same interfaces, and statistical analysis tools that we use in our gene discovery programs. The system enables users to input their own data on disease, genotypes and genealogy and to mine this data, in real time, for correlations. The results can then be analyzed in the context of our annotated human and animal genome sequence data. The system utilizes our proprietary Identity Protection System™, developed and employed in Iceland through the Icelandic Data Protection Authority to securely and automatically anonymize clinical and genetic data. We are adapting the CGM Discovery™ to run on IBM servers, and plan to have the product ready to deliver to customers in the middle of 2003.

### **Services**

Through our service offerings, we aim to generate significant near-term revenue from the same capabilities and assets that we are employing in the development of drugs, diagnostics and pharmacogenomics. The following is a brief description of our service businesses.

### **Drug Discovery and Development**

In March 2002 we acquired MediChem Life Sciences in a stock-for-stock transaction. We did so in order to gain the advanced drug discovery and development capabilities necessary to take our targets into proprietary development, and thereby to maximize the value we are able to create from our work in the genetics of common diseases. At the same time, the acquisition provided us with MediChem's contract service business. The advantage of this for deCODE is that it enables us to generate near-term revenue, helping to cover the overhead cost of maintaining a substantial and integrated drug discovery operation and thereby defraying some of the cost of pursuing our proprietary projects.

This business is built upon the demand by pharmaceutical and biotechnology companies for contract chemistry services. Recent advances in genomics have resulted in the rapid growth in the number of novel biological targets that can be exploited for drug discovery. This has created a significant demand by pharmaceutical and biotechnology companies for the synthesis of small molecule drugs. Founded in 1987, MediChem, now our pharmaceuticals group, is a full-service drug discovery technology and services company focused on using its high-throughput integrated chemistry platform to streamline genomics-based drug discovery and development. The group is focused on chemistry-based drug discovery and development ranging from early-stage lead discovery and optimization to the identification of viable synthetic routes required to manufacture cGMP materials in quantities for pre-clinical and clinical studies. It provides us, our partners and our contract customers with substantial expertise in structural proteomics; lead discovery and optimization; combinatorial, computational and medicinal chemistry; biocatalysis; analytical and separations chemistry; chemical synthesis and scale-up; and clinical trials management and regulatory approvals.

The customer base of our pharmaceuticals group includes large pharmaceutical companies, biotechnology firms, and patient organizations pursuing drug discovery for particular diseases.

#### *Pharmacogenomics and Clinical Trial Services*

In November 2000, we launched Encode as a wholly owned subsidiary for pharmacogenomics and clinical trials. In addition to conducting pharmacogenomics work for our proprietary programs, Encode conducts pharmacogenomic studies for contract customers, as well as clinical trials on new and existing therapeutics for pharmaceutical companies.

We believe that one of Encode's most unique and valuable capabilities is that for conducting pharmacogenomic analyses in parallel with clinical trials. The ability to understand which patients are best suited for a given drug will, in our view, provide several important potential benefits to our pharmaceutical and biotechnology customers. These include the ability to stratify and thus speed clinical trials, and to aid in capturing significant market share for new products entering competitive therapeutic areas.

In all of our pharmacogenomics alliances we negotiate for the right to participate in potential sales of tests developed using our capabilities in this field.

#### *Clinical Genome Miner™*

Another of our service offerings is subscription to the Clinical Genome Miner™ (CGM), a computer-based discovery system that allows users to perform real-time analyses to study the association between variation in human genes and human disease. The Clinical Genome Miner™ combines the statistical and datamining tools of the Clinical Genome Miner Discovery™ system (described above under Products: informatics) with the ability to conduct statistical queries of deCODE's population data on genotypes, genealogy and disease. Users can define a phenotype, conduct a genome-wide, population linkage scan using our framework marker set, and focus on the known genes in any chromosomal region of interest. They can also identify a gene, place it within the most detailed genetic and physical maps of the genome available — developed by deCODE — and view the population linkage correlations between the chromosomal location of the gene and more than 30 diseases.

We believe that subscriptions to the CGM are particularly valuable to deCODE as an element in product development alliances with major pharmaceutical companies, such as those we have with Merck and Roche Diagnostics. We believe that the principal value of the service lies in the ability to complement other companies' genomics-based target development efforts, for example to characterize and prioritize large numbers of drug and diagnostic targets whose links to human genetics and disease may not be well understood.

CGM users' interactions with the system are confined to the query layer; users do not have direct access to the data itself, which remains proprietary to deCODE. We are marketing the CGM on the basis of non-exclusive, multi-year subscriptions.

#### *Genotyping*

We believe that our assets and expertise in genotyping present a significant opportunity for contract services and give us important competitive advantages. Our population research into the genetic factors that

contribute to common diseases involves, in the first stage, the gathering, management and genotyping of thousands of biological samples. At our main research facility in Reykjavik, we have one of the highest-throughput genotyping laboratories in the world, capable of generating tens of millions of genotypes per month. We have developed high density genetic maps which enable us to accurately locate millions of microsatellite and SNP markers across the genome. We also have in place efficient, automated systems for all stages of the genotyping process, from DNA isolation to plate preparation and the generation, storage and analysis of genotypic data.

Given the high overhead costs involved in setting up a genotyping facility and the continued growth of applied genetics, we believe that there will be significant demand for these services from both the industrial and academic sectors.

## **Population Approach and Resources**

### ***Population Genetics and Common Diseases***

We believe that human population genetics offers a means of discovering powerful new methods for preventing and treating common diseases.

Most of the medical care that we have today has developed through a focus on the diagnosis of disease according to broadly accepted criteria of signs and symptoms, and the prescription of drugs that have been shown to alleviate the manifestations of disease once a patient has already become ill. The obvious shortcomings of this approach are due in large measure to the fact that relatively little has been known about the underlying biology of most of the common diseases. These conditions — such as stroke, heart attack, Alzheimer's disease, asthma, osteoarthritis, to name but a few — are common precisely because they are complex. These diseases arise from the confluence of various inherited and environmental factors which are present in large segments of most societies and which, taken independently, do not generally pose any particular risk to public health.

Genetics offers a means of unraveling this complexity and of gaining a foothold in the biology of disease. Once the key genes and mutations that underlie a predisposition to develop a given illness are identified, it is possible to identify the proteins they encode, the function of these proteins or gene products in the body, and their interaction with other proteins. In short, it is possible to tease out the biological mechanisms and pathways of disease. Using genetic markers and biological targets within these pathways, we believe it is possible to develop DNA-based diagnostics that can measure predisposition to disease and drugs that can disrupt the disease process.

We believe that deCODE's advantage in identifying genetic variations linked to disease arises from the complexity of the task. Unlike the rarer, "simple" genetic disorders, in which specific mutations lead directly to the development of disease, the complexity of the common diseases means that the correlation between any single genetic factor and the occurrence of the disease will be statistically significant but not direct.

The fundamental question for applying genetics to improve healthcare is: what genetic factors do people who have a given disease tend to share that people who do not develop the disease do not? Because the genome is in essence composed of serial bits of information, we have always approached this as an information challenge. In order to meet this challenge it is necessary to assemble large and detailed datasets on disease and genetic variation from as large a group as possible — ideally an entire population. It is also critical to have accurate and comprehensive genealogical records. Genealogy is the only means for systematically tracking the genetic components as they have been passed from one generation to the next across a population.

### ***The Icelandic Advantage***

We believe that the scarce resource in genetics is a population with all three sets of data — genealogical, genetic, and phenotypic. In Iceland, we have brought these resources together with advanced data mining tools to create what we believe is the world's leading gene-discovery engine for common diseases.

Iceland offers several advantages for conducting population genetics research. These include:

*Extensive Genealogies.* There exist genealogical records for the entire population, stretching from the present day back to the settlement of the country in the ninth century.

*Relative Homogeneity.* We believe that in a small and historically isolated population such as Iceland's, the variety of genetic factors involved in any given disease is likely to be smaller than in larger and more diverse populations. Iceland also presents many instances of "founder" effects, in which the principal inherited factors in a disease affecting many present day patients can be traced back to a single individual or "founder" ancestor. These factors simplify the task of finding and subsequently understanding the disease genes and mutations causing common diseases.

*Sufficient but Manageable Size.* The Icelandic population, which numbers approximately 280,000, is small enough to make feasible population-wide studies of the genetics of common diseases with a minimum of sampling bias. At the same time, it is large enough to deliver meaningful results without an increased incidence of recessive genetic conditions which can arise as a result of intermarriage. The prevalence of the common diseases in Iceland is very similar to that seen elsewhere in the industrialized world, and the genes we have identified in Iceland have been shown to be key genes in the same conditions in larger and more diverse populations.

*Centralized Healthcare System.* Iceland has had a universal, single-payer national healthcare system since 1915. It presently consists of a base of 55 primary care centers; a large teaching and research hospital in Reykjavik formed through the merger of the country's two largest hospitals; one central hospital in the country's second-largest city, Akureyri; and several smaller regional hospitals. Outside the primary care centers, the healthcare system is highly specialized. Specialty clinics care for most of the patients with major illnesses. Our clinical collaborators work at these specialty clinics, as well as in the major hospitals. This system makes both patient care and medical data universal, standardized and easily accessible for scientific research.

*Well-Educated Population.* The level of public education is high in Iceland and illiteracy is negligible. Historically, the Icelandic population has been willing to participate in biomedical research in the Icelandic community.

#### *Our Population Resources*

deCODE has utilized these advantages to develop its gene discovery engine. Our key resources include a computerized genealogy database that can in real time draw the familial connections of any group of present-day Icelanders; genotypic and detailed medical data from more than 90,000 volunteers in our research in some 50 diseases; one of the world's highest-throughput genotyping facilities; and statistical algorithms and software systems we have developed for storing this data and mining it for correlations between genetic variation and disease.

The success of our gene research is due in large part to the participation of tens of thousands of Icelanders in our research programs. We believe that participation is encouraged by the fact that we have one of the most advanced privacy and data protection systems anywhere in the world. All data on individuals used in our research is made personally non-identifiable and held under encrypted identifiers generated by the Icelandic government's Data Protection Authority. All genetic and medical data being used in the company's gene research has been obtained under the strictest standards of informed consent. Approximately 95% of all those who are asked to take part in our genetic studies agree to do so, as do over 99% of those asked to participate in a second study.

#### *Our Gene Discovery Process*

Using our population approach, we can efficiently conduct genome-and population-wide scans to identify the key genetic factors involved in virtually any common disease. In the study of any particular disease, we first define the disease classification broadly but rigorously. For example, in our research on stroke we first defined patients using the broad classification of the disease, including the principal subtypes, hemorrhagic and ischemic stroke, as well as less serious "mini-strokes" known as transitory ischemic events. In every disease we work with a group of general practitioners and specialist physicians who see patients with a given disease or group of diseases. Once the National Bioethics Committee has approved a research protocol for a given disease project, our clinical collaborators compile a list of all patients in Iceland who have been diagnosed with the disease. This list is encrypted by the Data Protection Authority, which also encrypts our genealogy

database using the same key. We then run the list of patients through the genealogy database, yielding very large extended families of patients, frequently encompassing hundreds of individuals.

The genealogy links together both closely and distantly related patients; by definition, these families will tend to share inherited risk factors for the disease. Our statisticians examine these large pedigrees and determine which patients would provide the maximum statistical power for genotypic analysis. We then send the encrypted IDs for this group of patients back through the Data Protection Authority, which decrypts the list and sends the names of the patients on to the collaborating physicians. The physicians then contact the patients, explain the nature of the gene discovery project and ask patients if they have close relatives who do not have the disease who might also be willing to participate. All those who wish to participate must sign an informed consent form, and are then asked to go to a special center located in Reykjavik where they can give blood from which DNA will be isolated. All blood samples are likewise labeled with encrypted IDs by the Data Protection Authority before being sent to deCODE. Those who give blood are also usually asked to meet with their doctor for a clinical examination to provide detailed information on health factors relevant to the disease or group of diseases under study. This information is likewise made personally non-identifiable by the Data Protection Authority before being sent to deCODE.

We genotype all DNA samples with a framework set of approximately 1000 microsatellite markers — polymorphic genetic signposts — spread across the entire genome. Using the genealogies and our datamining algorithms we can then determine which small segments of the genome related patients share to a statistically much higher degree than one would expect given their relatedness. We are thus able to “map” to small segments of particular chromosomes the genetic factors that correlate with the disease. Through detailed analysis of these regions using denser sets of microsatellite and SNP markers, we are able to efficiently isolate the key disease genes and disease-linked haplotypes and mutations.

We validate our findings by conducting association studies in other, more heterogeneous populations. When we have carried out such studies, we have found that the genes we have isolated in Iceland also play a critical role in the same diseases in other populations, although the variety of mutations or haplotypes we find is frequently greater. Understanding the range of mutations or haplotypes contributing to disease is particularly vital for the development of DNA-based diagnostic tests suitable for use around the world.

### *From Genes to Targets*

Our approach thus allows for a virtually hypothesis-free discovery process that homes in directly on the inherited components of human disease. This provides us with population-validated drug targets and diagnostic markers that are directly involved in the disease process.

In a majority of cases where we have isolated disease genes, the products of the genes themselves have provided “druggable” targets — that is, classes of proteins or enzymes against which chemists have previously been successful in designing compounds. However, once we have succeeded in identifying a disease gene, we also seek to define molecular pathways in which the disease gene plays a role. This is essential information both for understanding the biology of the disease and also for identifying additional drug targets that interact with the disease genes.

We have established complementary systems to isolate specific drug targets from “upstream,” “downstream” and “proximal” pathways that may be involved in the disease process. These approaches can expand the number of potential drug targets that can be used to identify compounds for disrupting the disease process.

Our proximal analysis identifies proteins that physically interact with the disease-gene product. As very few proteins work alone in the body, these partner proteins are likely to be involved in the normal biology of the disease gene. We carry out the screening in yeast cells, using methods which involve increasing stringency in order to eliminate false positive protein-protein interactions. We are also able to crossmatch the genes identified as partners of the first disease gene with additional population genomics data, as these genes may also be mutated in the same disease.

Potential drug targets from upstream pathways include proteins that control the expression level of the disease gene (i.e., those gene products that are responsible for turning the disease gene “on” or “off” in



particular tissues or under particular conditions). We link the control region of newly identified disease genes to a "reporter" gene and establish precisely which region governs expression. DNA from this region is used to retrieve specific binding proteins that are responsible for turning the disease gene "on." Finally, we perform gene expression analysis using Affymetrix GeneChip™ technology to validate our conclusions and to identify other genes which are regulated in tandem with the disease gene.

Our downstream analysis is designed to uncover genes that are influenced by the overexpression, underexpression or misexpression of the disease gene. We have established efficient systems to turn genes "on" or "off" in cells, as well as to express mutated versions revealed in the course of gene discovery. We employ DNA chip technology in our efforts to find genes the expression patterns of which are altered by the differential expression of the disease gene under study. Some of these genes may interact with the disease gene product in disrupting normal biology and leading to disease.

#### *Comparison to Other Approaches*

We believe that our approach, because it enables us to home in directly on the inherited components of human disease with a minimum of hypothetical bias, provides us with targets that of a uniquely high quality for drug and diagnostic development.

Some other companies are using an approach to locate disease genes that relies on associating specific, predetermined variations in DNA, whether scattered throughout the genome or in particular genes, with a propensity to develop a disease. We believe that this is an effective means of validating discoveries, but that as the basis for a discovery process it is analogous to searching for a single needle that is present in one of a hundred haystacks. We believe that our population genomics approach will allow us to find the haystack using our large families before we begin searching for the needle using genetic markers to isolate genes and haplotypes.

Other companies are using functional genomics to help select potential drug targets. Most of these approaches depend on expression analysis using DNA chips that compare the genes turned "on" or "off" in diseased tissue with those in normal tissue. We, on the other hand, apply functional genomics more selectively, focusing on the disease genes identified through our population genomics approach to more specifically define their molecular pathways.

There may be some limitations to our population genomics approach because disease genes found in Iceland may not always be directly relevant in other populations, although there is much overlap in disease genes that have been found in Iceland over the last 15 years and the rest of the world. The Icelandic population is probably too small to study diseases that are not common. However, our aim is to continue to focus on the diseases in Iceland that have the greatest public health prevalence worldwide.

#### *The Icelandic Health Sector Database*

In January 2000, our wholly-owned Icelandic subsidiary Islensk erfðagreining ehf., received from the Icelandic Ministry of Health a twelve-year license to create and operate the Icelandic Health Sector Database (IHD). Now under construction, the IHD will be a centralized database of personally non-identifiable and encrypted copies of health information from medical records in Iceland's national health system. The IHD will enable users to conduct statistical, population-based analyses of longitudinal healthcare data and trends. The system will assemble from medical records data on, for example, clinical measurements, disease diagnoses, treatments and outcomes. Users who will be able to query the IHD on a non fee-paying basis include the Health Ministry, doctors in Iceland's national health system, and Icelandic scientists engaged in non-commercial research. Potential fee-paying customers include pharmaceutical and biotechnology firms as well as healthcare providers.

We believe that the IHD will provide a valuable resource for better understanding the environmental components that, along with genetic factors, lie behind the onset of most common diseases. Using the Icelandic Data Protection Authority's encryption protocols, we will be able to query the data in the IHD for statistical correlations with our datasets on genotypes, genealogies, and disease data from volunteer participants in our gene discovery programs. As the data within the IHD is broader in scope and time frame than is the health data that we have gathered in the course of our gene research, this may enable us to gain novel

insights into environmental influences on health, the nature of disease, disease prevention strategies, responsiveness to treatment, and the ability of certain people to resist illness. The ability to query our existing datasets in conjunction with the IHD will constitute the deCODE Combined Data Processing (DCDP) system. We believe that this system will be much like the CGM service that we currently offer, complemented by the ability to query the data in the IHD.

In addition to the costs of developing the system, under the terms of the license we pay the Icelandic government a fixed fee for operating the IHD of 70 million Icelandic Krona per year (approximately \$913 USD as of March 2003), and will pay an additional 6% per annum of any profits from its commercialization.

We believe that the IHD will have the most comprehensive legally-mandated data and privacy protection provisions of any such database anywhere in the world. It will also be, we believe, one of the only such systems that will meet the World Medical Association's recently published ethical and data protection standards. In contrast to most medical research databases and epidemiological research protocols in Iceland and elsewhere, individuals who wish not to have their medical data included in the IHD have a legal right, under the 1998 law authorizing its creation, at any time to request that information about them not be entered into the IHD. Since 1998, some 20,000 people in Iceland have requested that the Icelandic Director of Public Health exclude their data. We believe that the IHD therefore provides a vanguard example of how to enable the use of large data collections to advance medical research while safeguarding the autonomy of individuals and providing the best available protection of potentially sensitive information.

As of March 2003, we are awaiting the conclusion of a government-mandated review of the IHD's data encryption and protection protocols. We are unable at present to predict the timing or outcome of this review, but believe that any delay will not affect our ability to pursue our principal business objectives.

### **Collaborations**

Our business strategy is focused on turning our discoveries and assets into to a broad range of products for the market, at the same time as we leverage our capabilities to generate near-term service revenue. In some instances we are pursuing product development on our own. In others, we have formed alliances with pharmaceutical and biotechnology firms through which we can cover some of the cost of conducting basic research and spread the risk and investment involved in product development. Depending on the nature of each prospective business opportunity, these alliances may include one or more of the following: up-front equity investments; direct payments for research; payments upon the achievement of scientific milestones; shared or exclusive rights to diagnostics and therapeutics; and royalties on products that our collaborators may bring to market. In some instances, we may negotiate for access to our collaborators technologies, for example libraries of chemical compounds, to enhance our operations.

Our principal partners include:

*F. Hoffmann-La Roche.* In January 2002, we extended our alliance with Roche through a three-year agreement focused on turning the achievements of our 1998 gene discovery collaboration into novel therapeutics ready for clinical trials. Under our 1998 agreement, we identified key genetic factors involved in ten major diseases: osteoarthritis, Alzheimer's disease, schizophrenia, peripheral arterial occlusive disease (PAOD), stroke, osteoporosis, obesity, anxiety, type 2 diabetes and rheumatoid arthritis. The new alliance extends our partnership with Roche to leverage our expanding capabilities in drug discovery and development. Under this new alliance, Roche will provide us with research funding to increasingly focus over the next two years on downstream research in a selection of four of the diseases covered by the earlier agreement. The two most advanced programs are those in schizophrenia and stroke. Under this alliance we will receive milestone payments for the development of compounds as well as royalties on the sales of drugs that are developed. We retain therapeutic development rights to those targets identified under the 1998 alliance and not carried over into the new alliance.

*Merck.* In September 2002, we entered into an alliance Merck & Co., Inc. (Merck) aimed at developing new treatments for obesity. Under the alliance, we are combining our research efforts in the genetics of obesity to identify, validate and prioritize a series of drug targets to take into development. The goal of the alliance is to accelerate the discovery of new drugs to fight obesity, a condition that now represents one

of the fastest-growing public health challenges in the industrialized world. Under the terms of the three-year agreement, we will receive research funding, technology access, license fees, milestone payments as compounds developed under the alliance advance in the development process, and royalties on successfully marketed alliance drugs.

*Roche Diagnostics.* In June 2001, we signed with Roche's diagnostics division a five-year alliance to develop and market DNA-based diagnostics for major diseases. The alliance represents an important element in our strategy of turning our research achievements into products for the market. The alliance brings together what we believe are important deCODE and Roche assets: our comprehensive population genomics resources and bioinformatics expertise, and Roche's prominence in the development and marketing of molecular diagnostics. In addition to the development of novel DNA-based diagnostic and predisposition screening products, we will be working under this alliance to use our Clinical Genome Miner™ system to develop point-of-care informatics products that can assist doctors in evaluating the results of DNA-based diagnostic tests.

*IBM.* In January 2003, we announced a three-year strategic alliance with IBM under which we will jointly market and sell our Clinical Genome Miner (CGM) Discovery™ system running on IBM hardware and software. CGM Discovery™ is the same statistically-based application for isolating and analyzing genes and gene variations associated with particular diseases that we have used in our gene discovery programs. The alliance aims to take advantage of our expertise in genetics and IBM's leadership in hardware and software systems to create solutions for what we believe is a growing market for information-based medicine. By understanding illnesses on the molecular level, including gene variations linked to disease or drug response, doctors may be able to make more precise diagnoses and tailor treatment decisions to better meet the needs of individual patients. Also, drug makers may be able to develop more targeted treatment therapies and identify potential clinical trial participants more effectively. Our joint solution is expected to be available globally to pharmaceutical biotechnology firms, government-sponsored research organizations, research hospitals and medical care facilities beginning in mid-2003.

*Wyeth.* In November 2002, we entered into a pharmacogenomics alliance with Wyeth. Under the agreement, we are using our *in vitro* pharmacogenomics approach to generate gene expression data for a drug candidate targeted to treatment of certain respiratory diseases.

*Pharmacia.* In December 2001, we formed a pharmacogenomics alliance with Pharmacia Corporation to identify the role of genetics in the development of advanced forms of heart disease. Under the agreement, we are employing our population resources and Clinical Genome Miner™ to find genetic markers that can be used to identify patients who are highly predisposed to progressing from an early to an advanced form of heart disease.

*Vertex Pharmaceuticals.* In January 2003 we announced an agreement with Vertex Pharmaceuticals under which we will gather and analyze pharmacogenomic data as part of clinical trials our subsidiary Encode conducts on Vertex developmental compounds. The first project under the agreement is a Phase IIa clinical trial for Vertex's VX-148 treatment for psoriasis. Our pharmacogenomics capabilities will enable Vertex to gain an understanding, in conjunction with clinical trial results, of genetic factors affecting the responses of individuals to treatment. This information may be useful in designing subsequent clinical strategies and pharmacogenomic tests. Based upon the results of work under this agreement, we and Vertex may extend our collaboration to the development and commercialization of pharmacogenomic tests.

*Affymetrix.* In July 2001, we formed a pharmacogenomics alliance with Affymetrix, Inc., under which we are developing DNA-based tests to predict the responsiveness of individual patients to treatments for common diseases. We are bringing together our population-based approach to pharmacogenomics and Affymetrix' GeneChip® technology, focusing initially on conducting gene expression analysis to understand the response to drugs used in the treatment of several common diseases. These include high-cholesterol, depression, asthma, hypertension, breast cancer, schizophrenia and migraine. Clinical work under this collaboration is being performed by Encode, our wholly-owned subsidiary. Through Encode, we will share the revenues from the sale of tests developed under the collaboration.

*Academic, Hospital and Physician Collaborations.* We have ongoing collaborations with a number of academic, healthcare and research organizations in other countries, including Emory University (Atlanta),

Partners HealthCare System (Boston), the University of Pennsylvania (Philadelphia), the University of Aberdeen (Scotland), the National Cancer Institute (Washington, DC), the Karolinska Institute (Stockholm), and the Center for Clinical and Basic Research (Denmark). These collaborations enable us to broaden our knowledge about the genetics discoveries we have made in Iceland in other patient populations, and provide our partners with access to our tools and expertise in human genetics. In all such collaborations we negotiate to retain intellectual property and product development rights on results obtained using our discoveries and expertise.

We have entered into collaboration agreements and arrangements with the Icelandic Heart Association and several groups of physicians in Iceland. The goal of these collaborations is the discovery of genetic factors which contribute to the genesis of certain disorders on which the various physician groups maintain patient information. Our collaborators contribute data and/or other clinical information to the project, while we provide our expertise in molecular genetics and experimental design, as well as necessary equipment and research supplies. We are responsible for the reimbursement of all expenses related to the projects. We share the ability to make management decisions regarding the projects with these collaborators, and we jointly form executive or steering committees to monitor the projects. Our collaboration agreements with these parties normally continue for a term of no more than five years.

To further facilitate our research projects and enable us to construct lists of patients with specific diseases, we have also entered into collaboration agreements and arrangements with two of the largest hospitals in Iceland. Under the terms of these agreements, the hospitals contribute research data, and surveillance committees that we jointly appoint with the hospitals monitor our projects. We are obligated to pay all the hospitals' out-of-pocket expenses incurred as a result of the collaboration. Our agreements with the hospitals will continue until terminated by the parties.

We have also entered into agreements with 27 Icelandic health institutions as required by the Icelandic Health Sector Database Act and License in order to have data transferred from those institutions to the IHD.

#### **Patents and Proprietary Rights**

Patents and other proprietary rights protections are an essential element of our business. We currently rely on patents, trade secret law and contractual non-disclosure and confidentiality arrangements to protect our proprietary information. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary rights are covered by valid and enforceable patents or are effectively maintained as trade secrets.

Accordingly, we actively seek patent protection in the United States and other jurisdictions to protect technology, inventions and improvements to inventions that are commercially important to the development of our business. These include, among other things, genes we discover; mutations of genes and related processes and inventions; technologies which may be used to discover and characterize genes; and therapeutic and diagnostic processes and other inventions based on these genes. As of year-end 2002, we had 20 issued U.S. patents and two issued patents in non-US jurisdictions. We also had 45 pending patent applications in the US and 63 pending patent applications in non-US jurisdictions. We claim priority under the Patent Cooperation Treaty for those of our U.S. applications that we consider to be of significant commercial value. We also intend to seek patent protection or rely upon trade secret rights to protect other technologies that may be used to develop databases and healthcare informatics products and services.

#### **Competition**

We face, and will continue to face, intense competition in our gene discovery programs from organizations such as major pharmaceutical companies, specialized biotechnology firms, pharmacogenomics companies, universities and other research institutions, the Human Genome Project and other government-sponsored entities. A number of entities are attempting to rapidly identify and patent genes responsible for causing diseases or an increased susceptibility to diseases and to develop products based on these discoveries.

Many of our competitors, either alone or together with their collaborative partners, have substantially greater financial resources and larger research and development staffs than we do. These competitors may discover, characterize or develop important genes, drug targets or drug leads before we or our collaborators do

or may obtain regulatory approvals of their drugs more rapidly than we or our collaborators do. They may develop healthcare informatics and database products before we do or which are technically superior to ours or prove to be more useful to our potential customers.

Developments by others may render pharmaceutical product candidates or technologies that we or our collaborators develop obsolete or non-competitive. Any product candidate that we or our collaborators successfully develop may compete with existing therapies that have long histories of safe and effective use.

Our competitors may obtain patent protection or other intellectual property rights that could limit our rights, or our customers' ability, to use our technologies or databases, or commercialize therapeutic or diagnostics products. In addition, we face, and will continue to face, intense competition from other companies for collaborative arrangements with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions and for licenses to proprietary technology.

Our ability to compete successfully will depend, in part, on our ability, and that of our collaborators, to: develop proprietary products; develop and maintain products that reach the market first, and are technologically superior to and more cost effective than other products on the market; obtain patent or other proprietary protection for our products and technologies; attract and retain scientific and product development personnel; obtain required regulatory approvals; and manufacture, market and sell products that we develop.

#### **Government Regulation**

Regulation by governmental authorities will be a significant factor in our ongoing research and development activities and in the development of the Icelandic Health Sector Database. In addition, the development, production and marketing of any pharmaceutical and diagnostic products which we or a partner may develop is subject to regulation by governmental authorities. Strict regulatory controls on the clinical testing, manufacture, labeling, supply and marketing of the products will influence our and our partners' ability to successfully manufacture and market therapeutic or diagnostic products.

Our success will depend, in part, on the development and marketing of products based on our research and development. Strict regulatory controls on the clinical testing, manufacture, labeling, supply and marketing of the products will influence our and our partners' ability to successfully manufacture and market therapeutic or diagnostic products. Most countries require a company to obtain and maintain regulatory approval for a product from the relevant regulatory authority to enable the product to be marketed. Obtaining regulatory approval and complying with appropriate statutes and regulations is time-consuming and requires the expenditure of substantial resources.

Most European countries and the United States have very high standards of technical appraisal and consequently, in most cases, a lengthy approval process for pharmaceutical products. The regulatory approval processes, which usually include pre-clinical and clinical studies, as well as post-marketing surveillance to establish a compound's safety and efficacy, can take many years and require the expenditure of substantial resources. Data obtained from such studies is susceptible to varying interpretations that could delay, limit or prevent regulatory approval. Delays or rejections may also be encountered based upon changes in drug approval policies in applicable jurisdictions. There can be no assurance that we or our collaborative customers will obtain regulatory approval for any drugs or diagnostic products developed as the result of our gene discovery programs.

Because many of the products which may result from our research and development programs are likely to involve the application of new technologies, various governmental regulatory authorities may subject such products to a greater degree of review. As a result, regulatory approvals for such products may require more time than for products using more conventional technologies. In addition, ethical concerns about the use of genetic predisposition testing, and in particular about the risk that such testing could lead to discrimination by insurance providers or employers, may lead to poor market acceptance or to regulatory controls that would adversely affect the development of or demand for diagnostic products based on our research.

Our creation and operation of the Icelandic Health Sector Database and the deCODE Combined Data Processing system will involve oversight by the Icelandic Ministry of Health, with the assistance of an Icelandic Health Sector Database Monitoring Committee, an Interdisciplinary Ethics Committee, the Bioethics Committee of Iceland and the Data Protection Authority of Iceland. These bodies will help to ensure our compliance with applicable laws and regulations.

### **Environmental**

deCODE's research facilities and laboratory are located in Reykjavik, Iceland. We operate under applicable Icelandic and European Union laws and standards, with which we believe that we comply, relating to environmental, hazardous materials and other safety matters. Our research and manufacturing activities involve the generation, use and disposal of hazardous materials and wastes, including various chemicals and radioactive compounds. These activities are subject to standards prescribed by Iceland and the EU. We do not believe that compliance with these laws and standards will have any material effect upon our capital expenditures, earnings or competitive position, nor that we will have any material capital expenditures for environmental control facilities for the remainder of this fiscal year or any succeeding fiscal year.

The activities of MediChem (now our pharmaceuticals group) involve the controlled use of hazardous materials. We are subject to U.S. federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although we believe that our pharmaceuticals group's activities currently comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources. In addition, there can be no assurance that we will not be required to incur significant costs to comply with environmental laws and regulations in the future.

### **Employees**

At December 31, 2002, deCODE and all of its subsidiaries employed 530 full-time staff. Of the total number at the end of 2002, approximately 140 were employed in the US, and 390 in Iceland. More than 100 held Ph.D or M.D. degrees and approximately 370 held college degrees. Four hundred and forty-five employees were engaged in, or directly supported, research and development activities, of whom 350 worked within the laboratory facilities and 95 held positions associated with the development and support of informatics. Forty-four employees were engaged in various professional support functions such as Finance, Business Development, Legal, Communications, Human Resources and Clinical Collaborations, and some 41 are employed in administrative support, facilities management, cleaning and security. In addition, we utilized part-time employees and outside contractors and consultants as needed and plan to continue to do so.

### **Certain Financial Information**

#### ***Research and Development Expenses***

Our research and development expenses were \$86.6 million in the year ended December 31, 2002, \$71.0 million in 2001 and \$45.7 million in 2000. Of these amounts, we estimate that \$30 million, \$26 million and \$23 million were spent on customer-sponsored research and development activities in 2002, 2001 and 2000, respectively. These estimates of customer-sponsored research and development are approximated based upon the number of personnel performing research work, and these estimates are not necessarily fully-burdened costs of revenue for the respective years in accordance with generally accepted accounting principles.

### *Significant Customers*

Historically, a substantial portion of deCODE's revenue has been derived from contracts with a limited number of significant customers. deCODE's largest customer, Roche, accounted for approximately 96% of the company's consolidated revenue in 2001 and Roche accounted for 41% of consolidated revenue in 2002. Revenues under the joint development and commercialization agreement with ABG, which was terminated in the fourth quarter of 2002, accounted for 15% of consolidated revenue in the year ended December 31, 2002. The loss of any significant customer may significantly lower deCODE's revenues and affect deCODE's progression to profitability.

### **RISK FACTORS, FORWARD-LOOKING STATEMENTS, AND CAUTIONARY FACTORS THAT MAY AFFECT FUTURE RESULTS**

This annual report on Form 10-K contains forward-looking statements. These statements relate to future events or our future financial performance. In some cases, forward-looking statements can be identified by terminology such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "intend," "potential" or "continue" or the negative of such terms or other comparable terminology. These statements are only predictions. We cannot assure our investors that our expectations and assumptions will prove to have been correct. We undertake no intention or obligation to update or revise any forward-looking statements, whether as a result of future events, new information or otherwise. Actual events or results may differ materially due to a number of factors, including those set forth in this section and elsewhere in this Form 10-K. These factors include, but are not limited to, the risks set forth below. Dollar amounts are in thousands, except share and per share amounts unless otherwise noted.

#### **Risks Related to Our Business**

*deCODE may not successfully develop or derive revenues from any products or services.*

deCODE uses its technology and research capabilities primarily to identify genes or gene fragments that are responsible for certain diseases, indicate the presence of certain diseases or cause or predispose individuals to certain complex diseases. Although deCODE has identified some genes that it believes are likely to cause certain diseases, deCODE may not be correct and may not be successful in identifying any other similar genes. Many experts believe that some of the diseases deCODE is targeting are caused by both genetic and environmental factors. Even if deCODE identifies specific genes that are partly responsible for causing diseases, any gene-based therapeutic or diagnostic products may not detect, prevent, treat or cure a particular disease. Accordingly, even if deCODE is successful in identifying specific genes, its discoveries may not lead to the development of commercial therapeutic or diagnostic products.

Any pharmaceutical or diagnostic products that deCODE or its collaborators are able to develop will fail to produce revenues unless deCODE:

- establishes that they are safe and effective;
- successfully competes with other technologies and products;
- ensures that they do not infringe on the proprietary rights of others;
- establishes that they can be manufactured in sufficient quantities at reasonable costs; and
- can market them successfully.

deCODE may not be able to meet these conditions. deCODE expects that it will be years, if ever, before it will recognize revenue from the development of therapeutic or diagnostic products.

deCODE's Clinical Genome Miner contains tools to discover or validate disease linked genes based on non-personally identifiable genotypic, genealogical and phenotypic data. deCODE cannot be sure that marketing the Clinical Genome Miner or the Clinical Genome Miner Discovery<sup>TM</sup> will lead to additional collaborations with potential clients.

The success of deCODE's informatics services and tools depends on its ability to:

- create database and cross reference software that is free from design defects or errors;

- effectively use the information derived from the Clinical Genome Miner™ and other bioinformatics services and tools in disease management, analysis of drug response, gene discovery and drug target validation; and
- develop marketing and pricing methods that the intended users of the deCODE's determining and other informatic services will accept.

Because only a small portion of the Icelandic population may carry certain mutations, the unwillingness of even a small portion of the population to participate in deCODE's programs could diminish its ability to develop and market information based on the use of genotypic data. If deCODE fails to successfully commercialize its database services, it will not realize revenues from this part of its business.

These products may not meet the needs of potential customers. deCODE has generated little revenues from sales or licenses of informatics products. deCODE cannot assure you that it can successfully develop or commercialize, or that there will be a market for, its informatics products.

*If the costs associated with the Medichem acquisition exceed the benefits, deCODE may experience adverse financial results, including increased losses.*

In March 2002, deCODE acquired MediChem Life Sciences Inc., or MediChem, with the expectation that the combination of deCODE's unique population genomics approach to identifying novel targets in major therapeutic areas with MediChem's high-throughput integrated chemistry platform would facilitate drug discovery and development. The acquisition was also expected to provide deCODE with revenue from MediChem's contract service businesses and to facilitate the formation of drug discovery and development alliances with pharmaceutical companies. Realization of these expectations and development and commercialization of potential drug candidates will depend not only on deCODE's successful integration of MediChem's business and the achievement of research objectives by MediChem and its collaborators, but also on each of MediChem's client's own financial, competitive, marketing and strategic considerations, all of which are beyond deCODE's control.

deCODE may continue to incur consolidation and integration expenses which it cannot accurately estimate fully at this time. Actual integration costs may substantially exceed deCODE's current estimates and may affect its financial condition and operating results negatively. If the benefits of the acquisition do not exceed the costs associated with the acquisition, deCODE's financial results could be adversely affected, including increased losses.

*If deCODE continues to incur operating losses longer than anticipated, or in amounts greater than anticipated, it may be unable to continue its operations.*

deCODE incurred a net loss of \$131.9 million for the year ended December 31, 2002, including \$64.8 million of employee termination, impairment and other costs, and has an accumulated deficit of \$295.1 million at December 31, 2002. deCODE has never generated a profit and it has not generated revenues except for payments received in connection with its research and development collaborations with Roche, Merck and other collaborations, and from contract services and interest revenues. deCODE must continue to make substantial expenditures over the next several years to develop its technologies and its internal research programs and to prepare the Clinical Genome Miner™, the CGM Discovery™, the Iceland Health Sector Database and other informatics. The integration of MediChem has and will continue to impact deCODE's results of operations and financial position. With MediChem, deCODE's revenues have increased but operating expenses and, at least for the near term, likely net losses will also increase. In addition, deCODE expects to continue to fund the working capital needs and operating activities of MediChem in the near term. The extent to which MediChem will ultimately impact deCODE's results of operations and financial condition is largely dependent upon the extent to which MediChem's capacity is brought to bear on deCODE's in-house programs and how much of their existing contract services business is maintained and developed. As a result, deCODE expects to incur net losses for several years. If the time required to generate product revenues and achieve profitability is longer than deCODE currently anticipates or the level of losses is greater than deCODE currently anticipates, deCODE may not be able to continue its operations.



*If deCODE's assumption about the role of genes in disease is wrong, it may not be able to develop useful products.*

The products deCODE hopes to develop involve new and unproven approaches. They are based on the assumption that information about genes may help scientists to better understand complex disease processes. Scientists generally have a limited understanding of the role of genes in diseases, and few products based on gene discoveries have been developed. Of the products that exist, all are diagnostic products. To date, deCODE knows of no therapeutic products based on disease-gene discoveries. If deCODE's assumption about the role of genes in the disease process is wrong, its gene discovery programs may not result in products, the genetic data included in its database and informatics products may not be useful to its customers and those products may lose any competitive advantage.

*Because revenues are concentrated, the loss of a significant customer would harm deCODE's business.*

Historically, a substantial portion of deCODE's revenue has been derived from contracts with a limited number of significant customers. deCODE's largest customer, Roche, accounted for approximately 96% of its consolidated revenue in 2001 and 41% of consolidated revenue in the year ended December 31, 2002. Revenues under the joint development and commercialization agreement with ABG, which was terminated in the fourth quarter of 2002, accounted for 15% of consolidated revenue in the year ended December 31, 2002. The loss of any significant customer may significantly lower deCODE's revenues and affect deCODE's progression to profitability.

*If deCODE is not able to obtain sufficient additional funding to meet its capital requirements, deCODE may be forced to reduce or terminate its research programs and product development.*

deCODE has spent substantial amounts of cash to fund its research and development activities and expects to continue to spend substantial amounts for these activities over the next several years. deCODE expects to use cash to collect, generate and analyze genotypic and disease data from volunteers in its disease-gene research programs; to conduct drug discovery and development activities; to continue to develop the Clinical Genome Miner and Clinical Genome Miner Discovery; to develop healthcare informatics products; and to continue other research and development activities. Many factors will influence its future capital needs, including:

- the number, breadth and progress of its discovery and research programs;
- its ability to attract customers;
- its ability to commercialize its discoveries and the resources it devotes to commercialization;
- the amount it spends to enforce patent claims and other intellectual property rights; and
- the costs and timing of regulatory approvals.

deCODE intends to rely on Roche, Merck and other existing and future collaborators for significant funding of its research efforts. In addition, deCODE may seek additional funding through public or private equity offerings and debt financings. deCODE may not be able to obtain additional financing when it needs it or the financing may not be on terms favorable to deCODE or its stockholders. Stockholders' ownership will be diluted if deCODE raises additional capital by issuing equity securities.

If deCODE raises additional funds through collaborations and licensing arrangements, it may have to relinquish rights to some of its technologies or product candidates, or grant licenses on unfavorable terms. If adequate funds are not available, deCODE would have to scale back or terminate its discovery and research programs and product development.

The Icelandic parliament has enacted legislation authorizing the Minister of Finance to provide an Icelandic government guarantee of a convertible bond offering of up to \$200 million by deCODE for the purpose of financing new activities of deCODE in the area of drug development. To become effective, this legislation must be approved by the EFTA (i.e. the European Free Trade Association) Surveillance Authority (ESA) for compatibility with the state aid stipulations of the agreement on the European Economic Area (EEA), to which Iceland is a signatory. As of the end of March 2003, the measure was still under review by ESA. deCODE cannot be certain that ESA will approve the legislation, that the Icelandic government will

make use of the authorization and offer the guarantee to deCODE for any or all of the permitted amount, that such offer to deCODE by the Icelandic Government, if effectuated, will be on terms acceptable to deCODE, or that even with such an authorization deCODE will be able to find a market for such an offering of convertible bonds.

***deCODE's current facilities and staff are inadequate for commercial production and distribution of products.***

If in the future deCODE chooses to engage directly in the development, manufacturing and marketing of certain products, it will require substantial additional funds, personnel and production facilities.

***deCODE's reliance on the Icelandic population may limit the applicability of its discoveries to certain populations***

The genetic make-up and prevalence of disease generally varies across populations around the world. Common complex diseases generally occur with a similar frequency in Iceland and other European populations. However, the populations of other nations may be genetically predisposed to certain diseases because of mutations not present in the Icelandic population. As a result, deCODE and its partners may be unable to develop diagnostic and therapeutic products that are effective on all or a portion of people with such diseases. Any difference between the Icelandic population and other populations may have an effect on the usefulness of the Clinical Genome Miner and Icelandic Health Sector Database in studying populations outside of Iceland. For deCODE's business to succeed, it must be able to apply discoveries that it makes on the basis of the Icelandic population to other markets.

***If deCODE fails to protect confidential data adequately, it could incur liability or lose its database license.***

Under laws and regulations in force in Iceland, including applicable European laws, directives and regulations, all information on individuals that is used in deCODE's population research is anonymized under the protocols and supervision of the Data Protection Authority of Iceland. To extent that any of this data held or generated by the company were to become personally identifiable deCODE would risk losing public support for participation in its research, and could be liable to legal action. Any failure to comply fully with all confidentiality requirements could lead to liability for damages incurred by individuals whose privacy is violated, the loss of its customers and reputation and the loss of the goodwill and cooperation of the Icelandic population, including healthcare professionals. These eventualities could materially adversely affect deCODE's work in Iceland.

The same general privacy and data protection laws and regulations as well as specific laws and regulations apply to deCODE's license to build and operate the Icelandic Health Sector Database (IHD). Were any data sent to or contained in the IHD to become personally identifiable, deCODE would incur the same risks above and potentially lose its database license.

***deCODE's creation and operation of the Icelandic Health Sector Database may be more expensive and time consuming than deCODE anticipates, and may lead to litigation***

deCODE's development of the Icelandic Health Sector Database (IHD) involves substantial government regulation and oversight, compliance with which can be expensive and time-consuming and may delay, prevent or increase the cost of development of the IHD. Data collection and use activities will be supervised by the Icelandic Health Sector Database Monitoring Committee, the Data Protection Authority of Iceland, and an Interdisciplinary Ethics Committee. In addition, the Icelandic Bioethics Committee will review deCODE's operation of the database.

Iceland is subject to both European Free Trade Association and European Union competition and public procurement rules. If it is determined that the Database Act or the Database License breaches such rules, the Database License could be revoked or diluted. In addition to the costs of developing the system, under the terms of the license we pay the Icelandic government a fixed fee for operating the IHD of 70 million Icelandic Krona per year (approximately \$913 USD as of March 2003), and will pay an additional 6% of any profits per annum from its commercialization.

Even if deCODE is able to successfully create and market the Icelandic Health Sector Database, the Database License will expire in January 2012. There is no assurance that deCODE will obtain further access rights on favorable terms, if at all.

The Icelandic parliament's passage of the Database Act and the Health Ministry's granting of the Database License have encountered some opposition in Iceland and internationally. Opponents of the IHD may initiate litigation in U.S., Icelandic or other national or international courts (for example, on the basis of an alleged breach of the patient-doctor confidentiality, constitutional privacy issues, international conventions dealing with protection of privacy issues or human rights conventions). In February 2000, certain Icelandic opponents of the IHD issued a press release announcing their intention to file lawsuits against the State of Iceland and any other relevant parties, including deCODE, to test the constitutionality of the Database Act. According to the press release, the lawsuit will allege human rights violations and challenge the validity of provisions of the Database Act. To date no such suit has been brought against deCODE. One lawsuit has been brought in Icelandic courts against the Directorate of Public Health in Iceland challenging the constitutionality of the Database Act. In the event that the Icelandic State by a final judgment is found to be liable or subject to payment to any third party as a result of the passage of legislation on the Icelandic Health Sector Database and/or the issuance of the Database License, deCODE's agreement with the Health Ministry requires deCODE to indemnify the Icelandic State against all damages and costs incurred in connection with such litigation. In addition, the pendency of such litigation could lead to delay in the development of the Icelandic Health Sector Database and an unfavorable outcome could prevent deCODE from developing and operating the Icelandic Health Sector Database.

*Some parts of deCODE's product development services create a risk of liability from clinical trial participants and the parties with whom it contracts.*

deCODE, through its wholly-owned subsidiary Encode ehf., contracts with drug companies to perform a wide range of services to assist them in bringing new drugs to market. deCODE also contracts with physicians to serve as investigators in conducting clinical trials. deCODE's services include:

- supervising clinical trials;
- data and laboratory analysis;
- patient recruitment;
- acting as investigators in conducting clinical trials; and
- engaging in Phase I clinical trials.

If, in the course of these trials or activities deCODE does not perform its services to contractual or regulatory standards;

- patients or volunteers suffer personal injury caused by or death from adverse reactions to the test drugs or otherwise;
- there are deficiencies in the professional conduct of the investigators with whom deCODE contracts;
- one of deCODE's laboratories inaccurately reports or fails to report lab results; or
- deCODE's informatics products violate rights of third parties,

deCODE could then be held liable for these eventualities by the drug companies with whom it contracts or by study participants. deCODE maintains insurance to cover ordinary risks, but such insurance may be inadequate and it would not cover the risk of a customer deciding not to do business with deCODE as a result of poor performance.

*Use of therapeutic or diagnostic products developed as a result of deCODE's programs may result in product liability claims for which deCODE has inadequate insurance.*

The users of any therapeutic or diagnostic products developed as a result of deCODE's discovery or research programs or the use of its database or medical decision-support products may bring product liability claims against deCODE. deCODE currently does not carry liability insurance to cover such claims. deCODE is not certain that it or its collaborators will be able to obtain such insurance or, if obtained, that sufficient

coverage can be acquired at a reasonable cost. If deCODE cannot protect against potential liability claims, deCODE's collaborators or deCODE may find it difficult or impossible to commercialize products.

*deCODE may be unable to hire and retain the key personnel upon whom its success depends.*

deCODE depends on the principal members of its management and scientific staff, including Dr. Kari Stefansson, Chairman, President and Chief Executive Officer, Hannes Smarason, Executive Vice President and Senior Business Officer, and Dr. Jeffrey Gulcher, Vice President, Research and Development. deCODE genetics, Inc. has not entered into agreements with any of the named persons that bind them to a specific period of employment. If any of these people leaves deCODE, deCODE's ability to conduct its operations may be negatively affected. deCODE's future success also will depend in part on its ability to attract, hire and retain additional personnel. There is intense competition for such qualified personnel and deCODE cannot be certain that it will be able to continue to attract and retain such personnel. Failure to attract and retain key personnel could have a material adverse effect on deCODE.

*Currency fluctuations may negatively affect deCODE's financial condition.*

deCODE publishes its consolidated financial statements in U.S. dollars. Currency fluctuations can affect its financial results because a portion of its cash reserves and its operating costs are in Icelandic kronas. A fluctuation of the exchange rates of the Icelandic krona against the U.S. dollar can thus adversely affect the "buying power" of deCODE's cash reserves and revenues. Most of deCODE's long-term liabilities are U.S. dollar denominated. However, deCODE may enter into hedging transactions if it has substantial foreign currency exposure in the future. deCODE may have increased exposure as a result of investments or payments from collaborative partners.

*deCODE's contracts may be terminable upon short notice.*

Many of deCODE's contracts are terminable on short notice. Specifically, MediChem's contracts are generally terminable upon 10 to 90 days' notice. This means that deCODE's contracts could be terminated for numerous reasons, any of which may be beyond its control such as a reduction or reallocation of a customer's research and development budget or a change in a customer's overall financial condition. The loss of a large contract or multiple smaller contracts, or a significant decrease in revenue derived from a contract, could significantly reduce deCODE's profitability and require it to reallocate under-utilized physical and professional resources.

#### **Risks Related to Our Collaborators**

*deCODE may not be able to form and maintain the collaborative relationships that its business strategy requires and the relationships may lead to disputes over technology rights.*

Our ability to generate revenue growth and become profitable is dependent, in part, upon our ability to enter into additional collaborative arrangements, and upon our ability and that of our collaborative partners to successfully commercialize products incorporating, or based upon, our work.

deCODE must form research collaborations and licensing arrangements with several partners at the same time in order to execute its business strategy. deCODE currently has only six substantial collaborative relationships, including two with Roche. To succeed, deCODE will have to maintain or expand these relationships and establish additional collaborations. There can be no assurance that we will be able to maintain or expand our existing collaborations, enter into future collaborations to develop applications based on existing or future research agreements, sign additional subscribers to our database services, or successfully expand our medicinal chemistry or pharmacogenetics businesses. Our failure to successfully develop and market products over the next several years, or to realize product revenues, would have a material, adverse effect on our business, financial condition and results of operations. We do not expect to receive royalties or other revenues from commercial sales of products developed using our technologies in the near term. It may be several years before product revenues materialize, if they do at all.

If deCODE's collaborations are not successful or deCODE is not able to manage multiple collaborations successfully, its programs will suffer. If deCODE increases the number of collaborations, it will become more

difficult to manage the various collaborations successfully and the potential for conflicts among the collaborators as to rights and products generated under work conducted with deCODE will increase.

*Dependence on collaborative relationships may lead to delays in product development and disputes over rights to technology.*

deCODE is dependent on collaborators for the pre-clinical study and clinical development of therapeutic and diagnostic products and for regulatory approval, manufacturing and marketing of any products that result from its technology. deCODE's agreements with collaborators typically allow them significant discretion in electing whether to pursue such activities. deCODE cannot control the amount and timing of resources collaborators will devote to its programs or potential products.

*Agreements with collaborators may have the effect of limiting the areas of research that deCODE may pursue either alone or with others.*

deCODE's arrangements may place responsibility for key aspects of information technology, product development and marketing on its collaborative partners. If deCODE's collaborators fail to perform their obligations, deCODE's information technology products could contain erroneous data, design defects, viruses or software defects that are difficult to detect and correct and may adversely affect its revenues and the market acceptance of its products. deCODE's collaborators may stop supporting its products or providing services to it if they develop or obtain rights to competing products. Disputes may arise in the future over the ownership of rights to any technology developed with collaborators. These and other possible disagreements between deCODE's collaborators and deCODE could lead to delays in the collaborative research, development or commercialization of products. Such disagreements could also result in litigation or require arbitration to resolve.

#### **Risks Related to Our Industry**

*Concerns regarding the use of genetic testing results may limit the commercial viability of any products deCODE develops.*

Other companies have developed genetic predisposition tests that have raised ethical concerns. It is possible that employers or others could discriminate against people who have a genetic predisposition to certain diseases. Concern regarding possible discrimination may result in governmental authorities enacting restrictions or bans on the use of all, or certain types of, genetic testing. Similarly, such concerns may lead individuals to refuse to use genetic tests even if permissible. These factors may limit the market for, and therefore the commercial viability of, products that deCODE's collaborators and/or deCODE may develop.

*deCODE may not be able to compete successfully with other companies and government agencies in the development and marketing of products and services.*

A number of companies are attempting to rapidly identify and patent genes that cause diseases or an increased susceptibility to diseases. Competition in this field and deCODE's other areas of business, including drug discovery and development as well as database services and healthcare informatics, is intense and is expected to increase. deCODE has numerous competitors, including major pharmaceutical and diagnostic companies, specialized biotechnology firms, universities and other research institutions, the United States-funded Human Genome Project and other government-sponsored entities and companies providing healthcare information products. deCODE's collaborators, including Roche and Merck, may also compete with deCODE. Many of deCODE's competitors, either alone or with collaborators, have considerably greater capital resources, research and development staffs and facilities, and technical and other resources than deCODE does, which may allow them to discover important genes before deCODE does. deCODE believes that a number of its competitors are developing competing products and services that may be commercially successful and that are further advanced in development than its potential products and services. To succeed, deCODE, together with its collaborators, must discover disease-predisposing genes, characterize their functions, develop genetic tests or therapeutic products and related information services based on such discoveries, obtain regulatory and other approvals, and launch such services or products before competitors. Even if deCODE's collaborators or deCODE is successful in developing effective products or services,

deCODE's products and services may not successfully compete with those of its competitors. deCODE's competitors may succeed in developing and marketing products and services that are more effective than deCODE's or that are marketed before deCODE's.

Competitors have established, and in the future may establish, patent positions with respect to gene sequences related to deCODE's research projects. Such patent positions or the public availability of gene sequences comprising substantial portions of the human genome could decrease the potential value of deCODE's research projects and make it more difficult for deCODE to compete. deCODE may also face competition from other entities in gaining access to DNA samples used for research and development purposes. Our competitors may also obtain patent protection or other intellectual property rights that could limit our rights, or our customers' ability, to use our technologies or databases, or commercialize therapeutic or diagnostics products. In addition, we face, and will continue to face, intense competition from other companies for collaborative arrangements with pharmaceutical and biotechnology companies, for establishing relationships with academic and research institutions and for licenses to proprietary technology.

deCODE expects competition to intensify as technical advances are made and become more widely known. deCODE's future success will depend in large part on maintaining a competitive position in the genomics field. Others' or deCODE's rapid technological development may result in products or technologies becoming obsolete before deCODE recovers the expenses it incurs in developing them.

Our ability to compete successfully will depend, in part, on our ability, and that of our collaborators, to: develop proprietary products; develop and maintain products that reach the market first, and are technologically superior to and more cost effective than other products on the market; obtain patent or other proprietary protection for our products and technologies; attract and retain scientific and product development personnel; obtain required regulatory approvals; and manufacture, market and sell products that we develop.

***Changes in outsourcing trends and economic conditions in the pharmaceutical and biotechnology industries could adversely affect deCODE's growth***

Economic factors and industry trends that affect deCODE's primary customers, pharmaceutical and biotechnology companies, also affect deCODE's business. For example, the practice of many companies in these industries has been to outsource to organizations like deCODE to conduct genetic research, clinical research, sales and marketing projects and chemistry research and development projects. If these industries reduce their present tendency to outsource those projects, deCODE's operations, financial condition and growth rate could be materially and adversely affected. These alliances and arrangements are both time consuming and complex and we face substantial competition in establishing these relationships. In addition, our ability to generate new business could be impaired by general economic downturns in our customers' industries.

***Regulatory approvals for products resulting from deCODE's gene discovery programs must be obtained or deCODE will not be able to derive revenues from these products.***

Government agencies must approve new drugs and diagnostic products in the countries in which they are to be marketed. deCODE cannot be certain that it can obtain regulatory approval for any drugs or diagnostic products resulting from its gene discovery programs. The regulatory process can take many years and require substantial resources. Because some of the products likely to result from deCODE's disease research programs involve the application of new technologies and may be based upon a new therapeutic approach, various government regulatory authorities may subject such products to substantial additional review. As a result, these authorities may grant regulatory approvals for these products more slowly than for products using more conventional technologies. Furthermore, regulatory approval may impose limitations on the use of a drug or diagnostic product.

After initial regulatory approval, a marketed product and its manufacturer must undergo continuing review. Discovery of previously unknown problems with a product may have adverse effects on deCODE's business, financial condition and results of operations, including withdrawal of the product from the market.

Our success will depend, in part, on the development and marketing of products based upon our research and development. Strict regulatory controls on the clinical testing, manufacture, labeling, supply and

marketing of the products will influence our and our partners' ability to successfully manufacture and market therapeutic or diagnostic products. Most countries require a company to obtain and maintain regulatory approval for a product from the relevant regulatory authority to enable the product to be marketed. Obtaining regulatory approval and complying with appropriate statutes and regulations is time-consuming and requires the expenditure of substantial resources.

Most European countries and the United States have very high standards of technical appraisal and consequently, in most cases, a lengthy approval process for pharmaceutical products. The regulatory approval processes, which usually include pre-clinical and clinical studies, as well as post-marketing surveillance to establish a compound's safety and efficacy, can take many years and require the expenditure of substantial resources. Data obtained from such studies is susceptible to varying interpretations that could delay, limit or prevent regulatory approval. Delays or rejections may also be encountered based upon changes in drug approval policies in applicable jurisdictions. There can be no assurance that we or our collaborative customers will obtain regulatory approval for any drugs or diagnostic products developed as the result of our gene discovery programs.

*Efforts to reduce healthcare costs may reduce market acceptance of deCODE's products.*

deCODE's success will depend in part on the price and extent to which it will be paid for its products by government and health administration authorities, private health insurers and other third party payors. Reimbursement for newly approved healthcare products is uncertain. Third party payors, including Medicare in the United States, are increasingly challenging the prices charged for medical products and services. They are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for new therapeutic products. deCODE cannot be certain that any third party insurance coverage will be available to patients for any products deCODE discovers or develops. If third party payors do not provide adequate coverage and reimbursement levels for deCODE's products, the market acceptance of these products may be materially reduced.

Numerous governments have undertaken efforts to control growing healthcare costs through legislation, regulation and voluntary agreements with medical care providers and pharmaceutical companies. If cost containment efforts limit the profits that can be derived from new drugs, deCODE's customers may reduce their research and development spending which could reduce the business they outsource to deCODE.

**Risks Related to Our Intellectual Property**

*deCODE may not be able to protect the proprietary rights that are critical to its success.*

deCODE's success will depend in part on its ability to protect its genealogy database and genotypic data and any other proprietary databases that it develops and its proprietary software and other proprietary methods and technologies. Despite deCODE's efforts to protect its proprietary rights, unauthorized parties may be able to obtain and use information that deCODE regards as proprietary. deCODE's commercial success will depend in part on obtaining patent protection. The patent positions of pharmaceutical, biopharmaceutical and biotechnology companies, including deCODE's, are generally uncertain and involve complex legal and factual considerations. deCODE cannot be sure that any of its pending patent applications will result in issued patents, that it will develop additional proprietary technologies that are patentable, that any patents issued to deCODE genetics, Inc. or deCODE's partners will provide a basis for commercially viable products, will provide deCODE with any competitive advantages or will not be challenged by third parties, or that the patents of others will not have an adverse effect on deCODE's ability to do business. If deCODE is unable to obtain patent protection for its technology or discoveries, the value of its proprietary resources will be adversely affected.

In addition, patent law relating to the scope of claims in the area of genetics and gene discovery is still evolving. There is substantial uncertainty regarding the patentability of genes or gene fragments without known functions. The laws of some European countries provide that genes and gene fragments may not be patented. The Commission of the EU has passed a directive that prevents the patenting of genes in their natural state. The U.S. Patent and Trademark Office initially rejected a patent application by the National Institutes of Health on partial genes. Accordingly, the degree of future protection for deCODE's proprietary

rights is uncertain and, deCODE cannot predict the breadth of claims allowed in any patents issued to it to others. deCODE could also incur substantial costs in litigation if it is required to defend itself in patent suits brought by third parties or if it initiates such suits.

Others may have filed and in the future are likely to file patent applications covering genes or gene products that are similar or identical to deCODE's products. deCODE cannot be certain that its patent applications will have priority over any patent applications of others. The mere issuance of a patent does not guarantee that it is valid or enforceable; thus even if deCODE is holding or is granted patents it cannot be sure that they would be valid and enforceable against third parties. Further, a patent does not provide the patent holder with freedom to operate in a way that infringes the patent rights of others. Any legal action against deCODE or its partners claiming damages and seeking to enjoin commercial activities relating to the affected products and processes could, in addition to subjecting deCODE to potential liability for damages, require deCODE or its partners to obtain a license in order to continue to manufacture or market the affected products and processes. There can be no assurance that its partners or deCODE would prevail in any action or that any license required under any patent would be made available on commercially acceptable terms, if at all. If licenses are not available, its partners or deCODE may be required to cease marketing its products or practicing its methods.

If expressed sequence tags, single nucleotide polymorphisms, or SNPs, or other sequence information become publicly available before deCODE applies for patent protection on a corresponding full-length or partial gene, deCODE's ability to obtain patent protection for those genes or gene sequences could be adversely affected. In addition, other parties are attempting to rapidly identify and characterize genes through the use of gene expression analysis and other technologies. If any patents are issued to other parties on these partial or full-length genes or gene products or uses for such genes or gene products, the risk increases that the sale of deCODE's or its collaborators' potential products or processes may give rise to claims of patent infringement. The amount of supportive data required for issuance of patents for human therapeutics is highly uncertain. If more data than deCODE has available is required, our ability to obtain patent protection could be delayed or otherwise adversely affected. Even with supportive data, the ability to obtain patents is uncertain in view of evolving examination guidelines, such as the utility and written description guidelines that the U.S. Patent and Trademark Office has adopted.

While deCODE requires employees, academic collaborators and consultants to enter into confidentiality agreements, there can be no assurance that proprietary information will not be disclosed, that others will not independently develop substantially equivalent proprietary information and techniques, otherwise gain access to our trade secrets or disclose such technology, or that deCODE can meaningfully protect its trade secrets.

## **Item 2. *Properties***

In January 2002, we moved our headquarters and laboratories to an approximately 150,000 square feet, three-story building owned by us and located on property subject to a 50-year ground lease at Sturlugata 8 Reykjavik, Iceland. Furthermore, we own a total of 28,000 square feet and have leased an additional 3,000 square feet in a building at Krokhsals 5, Reykjavik, to house additional laboratory facilities and storage including Encode's operation and maintain a facility for approximately 7 genealogist located in Thverholt 14, Reykjavik.

Our principal executive offices and discovery laboratories in the United States are located in Woodridge, Illinois, and encompass approximately 100,000 square feet with the capability to expand our offices and laboratories to 200,000 square feet. Additionally, we occupy approximately 50,000 square feet of additional leased office and laboratory space in Lemont, Illinois, which lease expires in October 2003, 15,000 square feet of additional laboratory space in Des Plaines, Illinois, which lease ran through October 2002 at which point we vacated the facility, and a 8,500 square foot leased facility located near Seattle, Washington.

We also lease approximately 6,500 square feet of office space in Waltham, Massachusetts, for business development and finance.



### Item 3. *Legal Proceedings*

We are not a party to any material legal proceedings except as follows:

In January 2000, Thorsteinn Jonsson and Genealogia Islandorum hf., the alleged holders of copyrights to approximately 100 books of genealogical information, commenced an action against us in the District Court of Reykjavik in Iceland. They alleged that our genealogy database infringes their copyrights and sought damages in the amount of approximately 616 million Icelandic kronas and a declaratory judgment to prevent us from using the allegedly infringing data. Subsequently, we acquired the copyrights at issue in the matter for 10 million Icelandic kronas (approximately \$120). On December 20, 2002, the case was dismissed without prejudice.

In February 2000, Mannvernd, an organization known as the Association of Icelanders for Ethics in Science and Medicine, issued a press release announcing its intention to file lawsuits against the State of Iceland and any other relevant parties, including us, to test the constitutionality of the Act. In its press release, Mannvernd indicated that it hopes to halt the construction and/or operation of the Icelandic Health Sector Database. In April 2001, a lawsuit was filed against the Icelandic Directorate of Public Health but Mannvernd has not commenced litigation against us. The ultimate resolution of this matter cannot yet be determined.

On or about April 20, 2002, an amended class action complaint, captioned *In re deCODE genetics, Inc. Initial Public Offering Securities Litigation* (01 Civ. 11219(SAS)), alleging violations of federal securities laws was filed in the United States District Court for the Southern District of New York on behalf of certain purchasers of deCODE common stock. The complaint names us, two of our current executive officers (the "Individual Defendants"), and the two lead underwriters (the "Underwriter Defendants") for our initial public offering in July 2000 (the "IPO") as defendants.

In the amended pleading, the plaintiff alleges violations of Section 11 of the Securities Act of 1933 and violations of Section 10(b) of the Securities Exchange Act of 1934 (and Rule 10b-5 promulgated thereunder) against us, the Individual Defendants and the Underwriter Defendants. In addition, the amended complaint alleges violations of Section 15 of the Securities Act of 1933, and Section 20(a) of the Securities Exchange Act of 1934 against the Individual Defendants. Generally, the amended complaint alleges that the Underwriter Defendants: (i) solicited and received excessive and undisclosed commissions from certain investors in exchange for which the Underwriter Defendants allocated to those investors material portions of the shares of our stock sold in the IPO; (ii) entered into agreements with customers whereby the Underwriter Defendants agreed to allocate shares of our stock sold in the IPO to those customers in exchange for which the customers agreed to purchase additional shares of our stock in the aftermarket at pre-determined prices; and (iii) improperly used their analysts, who purportedly suffered from conflicts of interest, to manipulate the market. The amended complaint further alleges that the prospectus incorporated into the registration statement for the IPO was materially false and misleading in that it failed to disclose these arrangements. The amended complaint also alleges that we and the Individual Defendants had numerous interactions and contacts with the Underwriters from which we and the Individual Defendants either knew of, or recklessly disregarded, the Underwriters' purported wrongful acts. The suit seeks unspecified monetary and rescissory damages and certification of a plaintiff class consisting of all persons who purchased shares of our common stock from July 17, 2000 to December 6, 2000.

We are aware that similar allegations have been made in hundreds of other lawsuits filed (many by some of the same plaintiff law firms) against numerous underwriter defendants and issuer companies (and certain of their current and former officers) in connection with various public offerings conducted in recent years. All of the lawsuits that have been filed in the Southern District of New York have been consolidated for pretrial purposes before Honorable Judge Shira A. Scheindlin. Pursuant to the underwriting agreement executed in connection with our IPO, we have demanded indemnification from the Underwriter Defendants. The Underwriter Defendants have asserted that our request for indemnification is premature.

Pursuant to an agreement the Individual Defendants have been dismissed from the case without prejudice. Along with numerous other issuers, we moved to dismiss the complaint for failure to state a claim. On February 19, 2003, Judge Scheindlin granted our motion with respect to the Section 10(b) claims and denied the motion with respect to the Section 11 claims.

We believe that the allegations against us and our officers are without merit and we intend to contest them vigorously. Because the litigation is, however, still in the preliminary stage, we cannot predict its outcome and the ultimate effect, if any, on our financial condition. In addition, it is possible that further lawsuits alleging substantially similar claims will be filed against us and our officers. If we are required to pay significant monetary damages as a result of such litigation, our business could be significantly harmed. Even if such suit or suits conclude in our favor, we may be required to expend significant funds to defend against the allegations. We are unable to estimate the range of possible loss from the litigation and no amounts have been provided for such matters in our financial statements.

**Item 4. *Submission of Matters to a Vote of Security Holders***

Not applicable.

**PART II**

**Item 5. *Market for the Company's Common Equity and Related Stockholder Matters***

The Company's Common Stock has been traded on the Nasdaq National Market and the EASDAQ Market under the symbol "DCGN" since July 17, 2000. The following table sets forth, for the calendar periods indicated, the range of high and low sale prices for the Common Stock of the Company on the Nasdaq National Market:

	<u>High</u>	<u>Low</u>
<u>2001</u>		
First Quarter .....	\$11.25	\$ 6.56
Second Quarter .....	\$15.15	\$ 5.28
Third Quarter .....	\$12.25	\$ 5.75
Fourth Quarter .....	\$10.60	\$ 5.92
<u>2002</u>		
First Quarter .....	\$10.10	\$ 5.52
Second Quarter .....	\$ 6.30	\$ 3.50
Third Quarter .....	\$ 4.99	\$ 1.55
Fourth Quarter .....	\$ 2.79	\$ 1.60

We have neither declared nor paid dividends on our common stock since our inception and do not plan to pay dividends in the foreseeable future. Any earnings that we may realize will be retained to finance our growth.

As of April 14, 2003, there were 5,706 holders of record of the Common Stock.

See Item 12 of this Annual Report on Form 10-K regarding the information called for by Item 201 (d) of Regulation S-K.

# Item 6. *Selected Financial Data*

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements and the notes to those statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report. The consolidated statement of operations data for the fiscal years ended December 31, 2002, 2001 and 2000 and the consolidated balance sheet data at December 31, 2002 and 2001 are derived from consolidated financial statements included elsewhere in this Annual Report that have been audited by PricewaterhouseCoopers, independent accountants. The consolidated statement of operations data for the fiscal years ended December 31, 1999 and 1998 and the consolidated balance sheet data at December 31, 2000, 1999 and 1998, are derived from statements that have been audited by PricewaterhouseCoopers and are not included in this Annual Report. Historical results are not necessarily indicative of future results.

	For the Year-Ended December 31,				
	2002	2001	2000	1999	1998
	(In thousands, except share and per share amounts)				
Revenue .....	\$ 41,065	\$ 26,099	\$ 21,545	\$ 16,591	\$ 12,705
Operating expenses					
Research and development, including cost of revenue ..	86,641	70,954	45,742	33,213	19,282
Selling, general and administrative .....	21,656	12,402	15,373	8,221	4,893
Impairment, employee termination and other charges (5) .....	64,790	0	0	0	0
Total operating expenses .....	173,087	83,356	61,115	41,434	24,175
Operating loss .....	(132,022)	(57,257)	(39,570)	(24,843)	(11,470)
Interest income .....	2,954	6,925	7,378	2,188	922
Interest expense .....	(3,079)	(440)	(495)	(549)	(360)
Other non-operating income and (expense), net .....	(72)	(1,675)	1,568	(584)	0
Net loss before cumulative effect of change in accounting principle .....	(132,219)	(52,447)	(31,119)	(23,788)	(10,908)
Cumulative effect of change in milestone revenue recognition method .....	333	0	0	0	0
Net loss .....	(131,886)	(52,447)	(31,119)	(23,788)	(10,908)
Accrued dividends and amortized discount on preferred stock (2) .....	0	0	(7,541)	(7,543)	(2,572)
Premium on repurchase of preferred stock .....	0	0	0	(30,887)	0
Net loss available to common stockholders (2) .....	\$ (131,886)	\$ (52,447)	\$ (38,660)	\$ (62,218)	\$ (13,480)
Basic and diluted net loss per share:					
Net loss before cumulative effect of change in accounting principle .....	\$ (2.69)	\$ (1.26)	\$ (1.81)	\$ (12.34)	\$ (3.39)
Cumulative effect of change in milestone revenue recognition method .....	0.01	0.00	0.00	0.00	0.00
Net loss .....	\$ (2.68)	\$ (1.26)	\$ (1.81)	\$ (12.34)	\$ (3.39)
Shares used in computing basic and diluted net loss per share (1) (2) .....	49,098,254	41,634,009	21,381,256	5,042,844	3,974,825
Pro forma amounts assuming new milestone revenue recognition method is applied retroactively:					
Revenue .....		\$ 23,182	\$ 22,670		
Net Loss .....		(55,364)	(29,994)		
Basic and diluted net loss per share .....		(1.33)	(1.40)		
Other non-GAAP Financial Data:					
Pro forma basic and diluted net loss per share (3) .....			\$ (0.91)	\$ (0.91)	
Shares used in computing pro forma basic and diluted net loss per share (3) .....			34,228,300	26,156,154	

	As of December 31,				
	2002	2001	2000	1999	1998
	(In thousands)				
Cash and cash equivalents .....	\$ 87,244	\$153,061	\$194,145	\$ 29,846	\$ 25,076
Total assets(4) (5) .....	213,417	249,900	248,901	80,527	38,540
Total long-term liabilities .....	56,533	44,428	3,519	5,471	6,946
Redeemable, convertible preferred stock(2) .....	0	0	0	121,589	43,158
Total stockholders' equity (deficit) (2) (4) (5) .....	125,246	170,733	216,269	(72,772)	(18,222)

- (1) See notes to the consolidated financial statements for an explanation of the determination of the shares used in computing basic and diluted net loss per share.
- (2) Effective upon the closing of our initial public offering in 2000, the outstanding shares of preferred stock were converted into shares of common stock and retired.
- (3) Pro forma basic and diluted net loss per share is computed as if the preferred shares had converted into common shares immediately upon their issuance. Accordingly, in the calculation of pro forma net loss per share, net loss has not been increased for the accumulated dividends or amortized discounts on preferred stock.
- (4) In March 2002, deCODE completed the acquisition of MediChem Life Sciences, Inc. (MediChem) in a stock-for-stock exchange accounted for as a purchase transaction. Total consideration for the acquisition was \$85,845. deCODE's Statements of Operations include the results of MediChem from March 18, 2002, the date of acquisition.
- (5) In September 2002, deCODE recorded impairment, employee termination benefits and other charges in the total amount of \$64,790.

**Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations (in thousands, except share and per share amounts unless otherwise noted)***

This Management's Discussion and Analysis of Financial Condition and Results of Operations as of December 31, 2002 and for the years ended December 31, 2002 and 2001 should be read in conjunction with the audited consolidated financial statements and notes thereto set forth elsewhere in this report.

This annual report on Form 10-K contains forward-looking statements, including our expectations of future industry conditions, strategic plans and forecasts of operational results. Various risks may cause our actual results to differ materially. A list and description of some of the risks and uncertainties is contained below and in the summary of risk factors included in Item 1.

The preparation of financial statements in conformity with generally accepted accounting principles requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reported period. On an ongoing basis we evaluate our estimates, which include, among others, those related to collaborative arrangements, property and equipment, income taxes, litigation and other contingencies, materials and supplies, derivatives, intangible assets, and bad debts. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form our basis for making judgments about carrying values of assets and liabilities that are not readily apparent from other sources. The impact and any associated risks related to these and our other accounting policies on our business or operations is discussed throughout Management's Discussion and Analysis of Financial Condition and Results of Operations where such policies affect our reported and expected financial results. For a detailed discussion on the application of these and other accounting policies, please refer to our notes to the Consolidated Financial Statements. There can be no assurance that actual results may not differ from the estimates referred to above.

**Overview**

We are a population genetics company developing drugs and DNA-based diagnostics based upon our discoveries in the inherited causes of common diseases. Our population approach and resources have enabled

us to isolate genes and targets directly involved in the development of many of the most common diseases. We are focused on turning these findings into a growing pipeline of products and services which we believe will be able to combat the causes of disease, not just the signs and symptoms. Our approach to the discovery of healthcare knowledge brings together three key types of non-personally identifiable data derived from our population research in Iceland. Genotypic and disease data from more than 90,000 volunteer participants in some 50 disease gene research programs, and genealogical data linking together the entire present-day population of Iceland and going back to the settlement of the country in the ninth century.

Our business strategy is to leverage our capabilities and assets to create product-driven value streams from the near through to the longer term. Our business is divided into two components: products and services. Our primary product focus is on the discovery and commercialization of novel therapeutics designed against targets identified in our population-based gene discovery work. Through the acquisition in March 2002 of MediChem Life Sciences and its subsidiary Emerald Biostructures, now our pharmaceuticals and biostructures groups, we have integrated capabilities for applying genetic findings to the development of drugs both through our own programs and in alliance with our corporate partners. Our product development activities also encompass the creation of new DNA-based diagnostics and pharmacogenomics tests, as we apply the links we have identified between genetic variation and disease, and genetic variation and drug response. We believe such tests will become a standard part of healthcare, making it possible to gauge individual predisposition to a particular disease and to design effective preventive strategies; to complement traditional clinical diagnoses; and to identify patients who are likely to respond or not respond to particular drugs. We are also marketing bioinformatics software systems developed in the course of our gene and drug target research for making correlations between genetic variation and disease and drug response.

Our services include pharmacogenetics and clinical trial services offered through our wholly-owned subsidiary Encode; contract services in structural biology, medicinal chemistry and scale up into the clinic conducted by our pharmaceuticals group based in Chicago; database services, through subscriptions to our Clinical Genome Miner system, integrating anonymized population data with data on disease, genotypes and genealogy; and genotyping services through our laboratory in Reykjavik.

We have incurred losses since our inception, principally as a result of research and development and general and administrative expenses in support of our operations. As of December 31, 2002 we had an accumulated deficit of \$295.1 million. On the basis of our current range of activities, and following the implementation in September 2002 of a plan to reduce costs and maximize the use of automation in our core genetics operations, we anticipate that we will be able to achieve positive cash flow from operations by the end of 2003. At the same time, we believe that the initiation of substantial new activities within this timeframe would require additional expenditures that could delay for some time our achievement of positive cash flow from operations. For example, in our target discovery work on our findings in myocardial infarction and hypertension, we believe we may be able to bypass much of the drug discovery process and enter directly into phase II clinical trials as early as mid-2003. We anticipate incurring additional net losses at least through the next two years, due to, among other factors, depreciation and amortization, as well as stock-based compensation and other non-cash charges. We expect that our revenues and losses will fluctuate from quarter to quarter and that such fluctuations may be substantial, especially because progress in our scientific work and milestone payments that are related to progress can fluctuate between quarters. We do not believe that comparisons of our quarter-to-quarter performance are a good indication of future performance.

We believe that current conditions in the global financial markets and in the pharmaceutical industry pose significant near-term challenges to biotechnology companies such as ourselves, as well as important opportunities. The principal challenge to us posed by the downturn in the market valuations of biotechnology companies and of the equity markets more generally is that it restricts our present ability to raise additional capital on favorable terms. In a very broad sense, it appears that the equity markets are currently more risk-averse than they have been in the recent past. The markets are therefore less willing to ascribe value to companies such as ourselves which, although developing new technologies that may have the potential for generating successful products, are still considered early-stage and are not yet profitable. This is a general trend affecting not only the biotechnology industry but all industries involved in developing new technologies

and products that are unproven in the marketplace. Moreover, it is not certain how long this sentiment in the equity markets will last.

In order to mitigate the risk to our product development programs posed by the current conditions in the financial markets, we have implemented measures aimed at preserving our cash resources. We have implemented a plan to reduce costs to a level that we anticipate will make it possible to achieve positive cashflow from operations by the end of 2003. We believe that we have sufficient cash resources to continue to fund our current research and operations for several years, and we are also investigating the possibility of alternative avenues of financing for our product development programs.

At the same time, the pharmaceutical industry, which is the principal customer base for our gene-discovery and contract chemistry businesses, is experiencing difficulties in maintaining historical rates of growth. This presents near-term challenges and significant longer-term opportunities. One of the main challenges facing the pharmaceutical industry is developing pipelines of effective new drugs to treat major indications. As many leading brand-name drugs come off patent and face generic competition, developing successful new medicines will become critical for filling the gap. In the short term, the financial pressures on pharmaceutical companies may be reflected in their research and development spending, making it more difficult for us to sign corporate alliances with significant upfront funding, or lengthening the time required to negotiate such deals. This will likely also lead to pressure on budgets for the outsourcing of chemistry services, which are an important source of revenue for us. We believe that in the medium to longer term, however, companies such as ours may be well positioned to play an important role in filling the gap in the pipeline of new drugs, either on their own or as partners of pharmaceutical companies. Our gene discovery programs are aimed at identifying novel drug targets that are involved in the basic biology of common diseases and we are focused on discovering new drugs against these targets, both on our own and with major pharmaceutical partners. Our partnerships with Roche and Merck demonstrate that the industry is already investing in the development of new therapeutics based on our approach. Similarly, it is possible that the pharmaceutical industry, in the interest of reducing internal overhead, may opt to increase its outsourcing of contract chemistry services.

### **Collaborations and Alliances**

Collaborations and further growth in our medicinal chemistry, pharmacogenomics and informatics services will remain an important element of our business strategy and future revenues. Our ability to generate revenue growth and become profitable is dependent, in part, on our ability to enter into additional collaborative arrangements, and on our ability and our collaborative partners' ability to successfully commercialize products incorporating, or based on, our work. It is also dependent on our ability to maintain and grow our service lines of business. There can be no assurance that we will be able to maintain or expand our existing collaborations, enter into future collaborations to develop applications based on existing or future research agreements, sign additional subscribers to our database services, or successfully expand our medicinal chemistry or pharmacogenetics businesses. Our failure to successfully develop and market products over the next several years, or to realize product revenues, would have a material, (or materially) adverse effect on our business, financial condition and results of operations. We do not expect to receive royalties or other revenues from commercial sales of products developed using our technologies in the near term. It may be several years before product revenues materialize, if they do at all.

We have entered into research, development and commercialization alliances and collaborations with major pharmaceutical and biotechnology companies across our business model. These alliances provide us with varied combinations of fixed funding for research, technology access fees, royalties and milestones. Our partners include Merck, Wyeth, Roche, Roche Diagnostics and Pharmacia. These agreements are generally established for a set term, usually three to five years. (Please refer to Item 1 for a summary of our significant collaborations.)

### **Acquisitions**

As part of our business strategy, we continue to consider joint development programs and merger and acquisition opportunities that may provide us with products in late-stage development, intellectual property or financial resources, or with capabilities that will help accelerate our downstream drug discovery efforts.

## MediChem

On March 18, 2002, we acquired MediChem Life Sciences, Inc. in a stock-for-stock exchange accounted for as a purchase transaction. The acquisition of MediChem is a central element in our strategy to transform deCODE from a company focused on gene discovery into a biopharmaceutical company capable of creating and capturing the greatest possible value from its discovery capabilities. The acquisition has benefited us in three ways: enabling us to advance our in-house programs in drug discovery; enabling us to negotiate much more favorable terms in our alliances with pharmaceutical companies, in which we take our discoveries much further down the drug development process and receive a more significant share of revenues from sales of products that are developed; and providing us with a service business generating revenue in the short term and maintaining the infrastructure for conducting drug discovery work on several programs at once. Through the acquisition we added approximately 160 new employees and facilities in Illinois and Washington.

The total consideration for the acquisition was approximately \$85.9 million, which consists of deCODE common stock issued in exchange for outstanding MediChem common stock (\$79.7 million), MediChem employee stock options assumed (\$2.3 million) and deCODE transaction costs (\$3.9 million).

We have recorded the transaction as a purchase for accounting purposes and have allocated the purchase price, based upon independent valuations, to the assets purchased and liabilities assumed based upon their respective estimated fair values. Identifiable intangible assets include developed technology, patents, customer and other contracts and agreements that have estimated useful lives ranging from three to ten years. In the first quarter 2002 we recorded a charge to earnings for acquired in-process research and development amounting \$480. In addition, amortization charges for other identifiable intangibles recorded in the MediChem acquisition will amount to approximately \$1.2 million annually. Under SFAS No. 142, resulting goodwill (\$62.3 million) will not be amortized but is subject to annual impairment testing (refer below).

Our consolidated financial statements include the cash flows and results of MediChem from March 18, 2002. The integration of MediChem has impacted and will continue to impact our results of operations and our financial position. With MediChem, our revenues have increased and will increase but our operating expenses have increased and will further increase and, at least for the near term, likely our net losses will increase. In addition, we expect to continue to fund the working capital needs and operating activities of MediChem in the near term. The extent to which MediChem will ultimately impact our results of operations and financial condition is largely dependant upon how much of MediChem's existing contract services business is maintained and developed and the extent that MediChem's capacity is used in proprietary programs we are working on with partners or alone.

Our statements of operations include the results of MediChem from March 18, 2002, the date of acquisition. The following unaudited pro forma financial information presents our consolidated results as if the acquisition of MediChem occurred at the beginning of 2001. Nonrecurring charges, such as the acquired in-process research and development charge of \$480 is not reflected in the following pro forma financial information but MediChem's restructuring and impairment charges totaling \$45,535 in 2001 are included. This pro forma information is not intended to be indicative of future operating results.

	For the Year Ended December 31,	
	2002	2001
	(In thousands, except per share amounts)	
Total revenues .....	\$ 45,153	\$ 46,750
Net loss .....	(136,318)	(102,995)
Basic and diluted net loss per share .....	(2.68)	(2.06)

## Termination of Agreements with Applied Biosystems Group

In the fourth quarter of 2002, we terminated and entered into a related settlement agreement regarding two agreements with Applied Biosystems Group (ABG) that have been in place since July 2001. Our

accounting policy for the Joint Development and Commercialization Agreement (the Agreement) with ABG to develop genotypic analysis products provides for revenue related to ABG's payment obligation and our development costs associated with the Agreement to be deferred until the development efforts are completed or the Agreement is terminated, if earlier, as was the case. As a result, deferred revenue and costs of \$6.3 million and \$0.8 million at September 30, 2002, respectively, were recognized in the fourth quarter of 2002 when the parties reached agreement as to termination.

At the same time, we reached agreement with ABG as to the termination of its Reagent Supply Agreement which required us to make certain minimum purchases on a quarterly basis. Settlement of the Reagent's Supply Agreement had no impact on our consolidated financial results.

### **Critical Accounting Policies**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reported period. On an ongoing basis we evaluate our estimates, which include, among others, those related to collaborative arrangements, property and equipment, income taxes, litigation and other contingencies, materials and supplies, derivatives, intangible assets, and bad debts. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form our basis for making judgments about carrying values of assets and liabilities that are not readily apparent from other sources. The impact and any associated risks related to these and our other accounting policies on our business or operations is discussed throughout Management's Discussion and Analysis of Financial Condition and Results of Operations where such policies affect our reported and expected financial results. For a detailed discussion on the application of these and other accounting policies, please refer to our notes to the Consolidated Financial Statements. There can be no assurance that actual results may not differ from the estimates referred to above.

*Collaborations and Revenue.* Our collaborative arrangements and the recognition of revenue in such arrangements is the accounting policy most critical to us. We have formed and will continue to form strategic alliances with collaborative partners. These agreements will consist of a variety of disease-focused programs under which we have or will conduct research funded by our partners, form alliances that combine the transfer of intellectual property with collaborative research and/or development in respect of a specific disease, therapeutic or diagnostic approach, and license intellectual property developed as a result of our proprietary research and development.

Currently a substantial portion of our revenues relate to funded research collaborations. Under these arrangements, we perform research in a specific disease area or disease areas aimed at discoveries leading to novel pharmaceutical and diagnostic products. These arrangements generally have fixed terms and renewal periods specific to each agreement. Under these agreements we are entitled to receive committed payments for which we recognize revenue over the term of the associated contract, inclusive of renewal periods to which the company is contractually bound. In addition, we generally receive contractually agreed milestone payments upon the achievement of specific research and product development milestones. We recognize milestones when acknowledgement of having achieved applicable performance requirements is received.

We record revenue earned from our research contracts in accordance with the applicable performance requirements and terms of our various contracts; that is, when payment becomes contractually due. Milestone revenue is recognized upon the achievement of milestones. Revenue associated with non-refundable up-front fees is generally recognized as contract research costs are incurred. "Revenue recorded" is a focal metric for us as it is, we believe, an important measure of value we create in a given reporting period. As such, we discuss both revenue recognized under GAAP in our income statement and revenue recorded to our balance sheet in Management's Discussion and Analysis of Financial Condition and Results of Operations and elsewhere in this Annual Report.

Given the nature of some of our contractual obligations, we may invoice in advance of the work being completed or we may be required to recognize revenue under GAAP in advance of being contractually



permitted to invoice for our services. Revenue invoiced in advance of satisfying the applicable criteria for revenue recognition remains as deferred revenue in our balance sheet at any reporting date and then is recognized a revenue as we provide the related services. Revenue recognized prior to the time we are contractually entitled to invoice is reported as unbilled costs and fees. In considering whether to recognize unbilled revenues we assess the likelihood of successfully fulfilling our obligations under the arrangement as well as the risk of collection.

We are also entitled to royalties or profit sharing under the terms of our agreements. Due to the extended time period for the development and commercialization of a saleable product or therapy, we have not yet received royalties or profit sharing under any of our contracts.

Although we currently depend upon funded research arrangements for a significant portion of our revenue, we continue to invest in proprietary research and we will incur the costs of such research. In the near term, this will require us to continue to make investments in our in-house capabilities for downstream development which we believe will better position us to capture the most value to us in our discoveries. As we identify promising discoveries for further development, we may choose to continue the development ourselves into and through clinical trials, regulatory clearances and manufacture, distribution and marketing. In other cases we are or will be working to varying degrees with partners.

Moving from primarily funded research activities to more proprietary research activities will, we believe, increase the potential reward to us from our research. In doing so, we may trade-off an amount of revenue guaranteed for the short-term — i.e., research funding — that would go to support these activities. We will make these decisions with the view of increasing our stake in the long-term value of our discoveries while at the same time carefully managing utilization of our cash resources.

*Other.* We consider certain other accounting matters related to property and equipment, foreign exchange transactions, income taxes and litigation and other contingencies to also be important policies for us.

- *Long-lived assets.* We periodically review property and equipment for potential impairments and to assess whether their service lives have been affected by continued technological change and development. In September of 2002, we implemented a cost reduction program aimed at achieving positive operating cashflow from existing operations by the end of 2003. In this regard, we reduced total worldwide headcount by approximately 200 employees during 2002, focusing in particular on utilizing ongoing process automation and increased productivity in the core genetics operations in Reykjavik. Stemming from this initiative and together with our consideration of significant and pervasive declines in the market environment for pharmaceutical and biotech industries, we determined that impairment tests of the carrying value of our goodwill and other long-lived assets, including the long-lived assets acquired through the MediChem acquisition, should be performed. We have completed these tests and recorded impairments and write-downs of long-term assets amounting to \$60,874 for the year-ended December 31, 2002. Should we determine that there has been further impairment of our fixed assets, goodwill or other intangible assets we would again suffer an increase to our net loss or a reduction of our net income in the period such a determination is made. In 2001, we reduced the service lives of our gene sequencing machines from five years to four years to better reflect our estimate of the service lives of these machines resulting in an increase to depreciation expense of \$1.4 million in that year. Should we determine that the pace of technological change or other matters dictate that we change the estimated service lives of other of our assets, there will be an impact on depreciation expense from the date of the change.
- *Materials and supplies.* We value our materials and supplies at the lower of cost or market, cost being determined on the first-in, first-out method. We apply judgment in determining necessary provisions for slow moving, excess and obsolete materials and supplies based on historical experience and anticipated usage, giving effect to general market conditions. Any rapid technological changes or future business developments could result in an increase in the amount of obsolete materials and supplies on hand. Furthermore, if our estimates of our needs for materials and supplies prove to be inaccurate, additional provision may be required for incremental excess and obsolete items.

- *Foreign exchange transactions.* Our functional currency is the U.S. dollar. However, in light of the significance of our operations outside the United States, an important element of our cost base is or will be denominated in Icelandic krona, including much of our payroll and other operating expenses and some of our long-term borrowings. To manage our exposure to fluctuations in exchange rates, we have entered into and will likely continue to enter into derivative instruments to hedge our exposure to such fluctuations. We have entered into interest rate and foreign currency risk arising from long-term debt obligations denominated in Icelandic krona. These interest rate and cross-currency swaps are designated as economic hedges of fixed rate foreign currency debt, but do not qualify for hedge accounting under SFAS 133. At each reporting date, the estimated fair value of these instruments is recorded on our balance sheet and the resulting unrealized gain or loss is included as an other non-operating income or expense in our Statements of Operations. We estimate the fair value of these instruments using information that is available at the time of such determination; however, the financial markets for these instruments are immature and, as a result, there is significant judgment inherent in the estimating process. Consequently, subsequent changes in the market for such instruments and/or our views with respect to such and the estimate of the fair value of these instruments could materially affect our results of operations for any particular quarterly or annual period.
- *Income Taxes.* The preparation of financial statements requires us to evaluate the positive and negative evidence bearing upon the realizability of our deferred tax assets resulting from deductible operating losses and other items. Due primarily to our history of operating losses and the expectation that such losses will continue into the foreseeable future, we have concluded that currently is insufficient positive evidence exists to justify the recognition of our net deferred tax assets in our balance sheet. Although there can be no assurance that losses generated to date will be used to offset future taxable income, an adjustment to the valuation of our current net deferred tax assets in the future would increase income in the period that we made a determination that such an adjustment was appropriate.

Income tax in Iceland is payable in Icelandic krona. Consequently, the US dollar value of our net operating loss carryforwards and other deferred tax assets and liabilities is subject to fluctuations in exchange rates. Such fluctuations over time may increase or reduce the reported US dollar balance of our deferred tax assets and liabilities, and there would be a corresponding gain or loss reported in our income statement.

- *Litigation and Other Contingencies.* We consider litigation and other claims and potential claims or contingencies in preparing our financial statements under generally accepted accounting principles. We maintain accruals for litigation and other contingencies when we believe a loss to be probable and reasonably estimated. We base our accruals on information available at the time of such determination. Although we are party to litigation and other actual or potential claims, our legal counsel and we are unable to estimate the probability of an unfavorable outcome or estimate any resulting loss. Consequently, we have not included an accrual for such costs in our financial statements. Changes or developments in the relevant action or our strategy in such proceedings could materially affect our results of operations for any particular quarterly or annual period. Since the recognition of a loss is dependent upon factors not completely in the control of management, timing of a charge, if any, is difficult to predict with certainty.

#### **Results of Operations from the Years Ended December 31, 2002, 2001 and 2000**

Our results of operations have fluctuated from period to period and may continue to fluctuate in the future based upon, among other things, the timing and composition of funding under our various collaborative agreements, as well as the progress of our own research and development efforts and how quickly and in what proportion MediChem's (now our pharmaceuticals and biostructures groups) capacity is brought to bear on our in-house programs. Results of operations for any period may be unrelated to results of operations for any other period. In addition, historical results should not be viewed as indicative of future operating results. We are subject to risks common to companies in our industry and at our stage of development, including risks inherent

in our research and development efforts, reliance upon collaborative partners, development by us or our competitors of new technological innovations, ability to market products or services, dependence on key personnel, dependence on key suppliers, protection of proprietary technology, ability to obtain additional financing, ability to negotiate collaborative arrangements, and compliance with governmental and other regulations. In order for a product to be commercialized based on our research, we and our collaborators must conduct preclinical tests and clinical trials, demonstrate the efficacy and safety of our product candidates, obtain regulatory approvals or clearances and enter into manufacturing, distribution and marketing arrangements, as well as obtain market acceptance. We do not expect to receive revenues or royalties based on therapeutic or diagnostic products for a period of years, if at all.

*Revenue.* Our revenues from research and development collaboration agreements are recorded and recognized in accordance with the applicable performance requirements and terms of the respective contracts, generally either (i) as contract research costs are incurred, usually ratably over the period of effort, (ii) according to the percentage of completion method of contract accounting based on the ratio of contract research costs incurred to expected total costs, or (iii) upon the achievement of substantive milestones. Funding payments are not refundable in the event that the related efforts are not successful. Non-refundable, up-front payments we receive are deferred and recognized on a straight-line basis over the contract term. Our contracted chemistry services revenue from negotiated rate contracts are recognized on a per diem basis as services are rendered or on the percentage of completion method based on the ratio of costs incurred to expected total costs for fixed fee contracts based upon the terms of the underlying contract. Any losses on contracts are provided for when they are determinable. Included in revenue are billings to customers for the cost of materials purchased by us under the contract.

Prior to January 1, 2002, we recorded all milestone payments received when acknowledgement of having achieved applicable performance requirements was received from the collaborator and we recognized milestone payments as revenue on a retrospective basis over the contractual term of the underlying agreement. We believe the milestone payment method to be a preferable method in recognizing revenue for milestone payments made under particular contracts in that it more closely relates to the underlying activity that results in the revenue-generating milestone event under such contracts. Effective January 1, 2002, we changed our method of recognizing milestone revenue to the milestone payment method for contracts where (i) the milestone event is substantive, (ii) there is substantial effort involved in achieving the milestone, (iii) the milestone payment amount is commensurate with the magnitude of the related achievement, and (iv) the associated follow-on revenue streams bear a reasonable relationship to one another. Under the milestone payment method we record revenue when the milestone has been achieved and payment is due and payable under the terms of the respective agreement and we recognize revenue when acknowledgement of having achieved applicable performance requirements is received from the collaborator. As before, milestone payments without the above characteristics are recognized on a retrospective basis over the contractual term of the underlying agreement.

The cumulative effect of the change in accounting principle on prior years results of \$(333) is included in income in the year ended December 31, 2002. Had the retrospective basis of milestone revenue recognition been continued for the year ended December 31, 2002, revenue, net loss and basic and diluted net loss per share would have been \$40,873, \$(131,861) and \$(2.69), respectively.

The following is a summary of deferred revenue:

	For the Year Ended December 31,		
	2002	2001	2000
		(In thousands)	
Revenue recorded during the year .....	\$ 43,437	\$ 32,991	\$ 23,712
Revenue recognized during the year .....	(41,065)	(26,099)	(21,545)
Deferred revenue recorded on acquisition of MediChem ...	827	0	0
Cumulative effect of change in milestone revenue recognition policy .....	(333)	0	0
	2,866	6,892	2,167
Deferred revenue at beginning of year .....	11,297	4,405	2,238
Deferred revenue at end of year .....	<u>\$ 14,163</u>	<u>\$ 11,297</u>	<u>\$ 4,405</u>

Our revenues increased to \$41,065 for the year-ended December 31, 2002 as compared to \$26,099 and \$21,545 for the years ended December 31, 2001 and 2000, respectively. The increase in 2002 is attributable to the addition of research funding under the collaboration with Merck, and to the addition of deCODE's recently acquired pharmaceuticals and biostructures groups, offset by the recognition of revenue from milestone achievements under the 1998 research collaboration with Roche during 2001 that did not recur in 2002. The \$4,554 or 21% increase in total revenues from 2000 to 2001 principally resulted from the recognition of revenue from new milestone achievements under our 1998 research collaboration with Roche but also from the new diagnostics collaboration with Roche. We expect that our revenues will fluctuate from quarter to quarter and that such fluctuations may be substantial especially because progress in our scientific work, including milestone payments that are related to progress, can fluctuate between quarters.

At December 31, 2002, the total amount of deferred research revenue that will be recognized in future periods aggregated \$14,163. Revenues recorded increased to \$43,437 for the year-ended December 31, 2002 as compared to \$32,991 and \$23,712 for the years ended December 31, 2001 and 2000, respectively. We recorded significant revenues in 2001 principally as a result of the then new diagnostics collaboration with Roche and also milestone achievements under our 1998 research collaboration with Roche. Revenue recorded in 2002 includes access fees and research funding under the alliance with Merck, as well as access fees and research funding under the therapeutics and diagnostics collaborations with Roche and the revenues recorded by our recently acquired pharmaceuticals and biostructures groups. The \$9,279 or 39% increase in recorded revenues from 2000 to 2001 is principally attributable to our then new diagnostics collaboration with Roche and other collaborations, but also results from greater milestone achievements under our 1998 research collaboration with Roche.

*Research and Development, including Cost of Revenue.* Our research and development expenses increased to \$86,641 for the year-ended December 31, 2002 as compared to \$70,954 and \$45,742 for the years ended December 31, 2001 and 2000, respectively. The increase in 2002 as compared to 2001 reflects spending related to the range of our disease-gene research programs and the initiation of downstream work on targets already identified as well as the addition of our newly-acquired pharmaceutical and biostructures groups from March 2002. The \$25,212 or 55% increase in research and development expenses from 2000 to 2001 is primarily attributable to depreciation on the expanded asset base and increased usage of consumables in support of, among other things, our new ABI Prism 3700 DNA Analyzers, salaries and contractor services, and the disposal of laboratory equipment.

*Selling, General and Administrative Expenses.* Our selling, general and administrative expenses were \$21,656 for the year-ended December 31, 2002 as compared to \$12,402 and \$15,373 for the years ended December 31, 2000 and 1999, respectively. The increase in 2002 as compared to 2001 results from expanded sales efforts across our businesses and from the addition of selling, general and administrative costs of our pharmaceutical and biostructures groups from March 2002 offset somewhat by a one-time, non-cash litigation settlement in 2001. Without regard to the litigation settlement charge in 2001, \$3.2 million of stock-based contributions in 2000, and stock-based compensation and remuneration charges both periods, general and

administrative expense increased approximately \$2.2 million or 28% from 2000 to 2001 as a result of added salaries, contractor services and other general and administrative expenses in the expansion of our operations.

*Stock-Based Compensation and Remuneration Expense.* Stock-based compensation and remuneration expense decreased to \$3,048 for the year-ended December 31, 2002 as compared to \$4,651 and \$8,687 for the years ended December 31, 2001 and 2000, respectively. With little compensation expense being attributed to our more recent stock option grants, stock-based compensation and remuneration expense has been decreasing as grants made to employees in earlier years become fully vested. Historical stock-based compensation and remuneration is not necessarily representative of the effects on reported income or loss for future years due to, among other things, the vesting period of the stock options, the value of stock options that have been granted in recent times and the value of additional options that may be granted in future years.

*Impairment, Employee Termination Benefits and Other Costs.* In September of 2002, we implemented a cost reduction program aimed at achieving positive operating cashflow from existing operations by the end of 2003. In this regard, we reduced total worldwide headcount, focusing in particular on utilizing ongoing process automation and increased productivity in the core genetics operations in Reykjavik. Stemming from this initiative and together with our consideration of significant and pervasive declines in the market environment for pharmaceutical and biotech industries, we determined that impairment tests of the carrying value of our goodwill and other long-lived assets, including the long-lived assets acquired through the MediChem acquisition, should be performed. We have recorded the following impairment, employee termination benefits and other charges in the year-ended December 31, 2002:

	(In thousands)
Employee termination benefits .....	\$ 2,158
Impairment of goodwill .....	53,400
Impairment of property and intangible asset .....	2,715
Write-down of assets held for sale .....	2,706
Write-down of equipment .....	2,053
Obsolete and excess materials and supplies .....	1,758
	<u>\$64,790</u>

Charges related to termination benefits are for 132 employees. Of the \$2,158 provided, \$1,284 was paid in the fourth-quarter 2002 and \$874 remains accrued and unpaid as of December 31, 2002. These remaining benefits are expected to be settled in cash over the first-quarter 2003.

For purposes of the goodwill impairment tests, we identified our reporting units, identified the assets and liabilities of the reporting units and performed impairment tests on the net goodwill associated with them. Goodwill that resulted from the acquisition of MediChem was assigned to the reporting units based upon expectations of synergies to be gained from the integration of the pharmaceutical and biostructures groups with the overall group. Goodwill impairment is deemed to exist if the net book value of a reporting unit exceeds its estimated fair value. To identify potential impairment, we compare fair value of a reporting unit with its carrying amount, including goodwill. For this purpose, we estimate fair value of a reporting unit using analyses of comparable companies and recent comparable transactions. In measuring the amount of impairment loss, we compare the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill, estimating the fair value of an impaired reporting unit using discounted cash flow methodologies. The goodwill impairment charge is associated solely with goodwill resulting from the acquisition of MediChem and results largely from significant and pervasive declines in the market environment for the pharmaceutical and biotech industries impacting, among other things, market valuations of companies operating in those industries.

In September 2002, we committed to a plan to sell our Woodridge Discovery Center and an agent was engaged and has initiated an active marketing program to locate a buyer/investor in a sale and leaseback transaction. Efforts to enter into a sale and leaseback transaction continue with a view to having a re-financing being completed by mid-2003. Taking into account the estimated selling price of the building, we recorded an

impairment charge in the year-ended December 31, 2002 amounting to \$2,065. In addition, certain intangible assets amounting to \$650 were determined to be impaired utilizing a discounted cashflow methodology to estimate fair value.

In September 2002, we committed to a plan to sell our former headquarters facility that had been vacated in connection with the move to our new headquarters facility in Reykjavik's University district earlier in the year. In October 2002, an agent for the sale was engaged and an active marketing program to locate a buyer was initiated. In November 2002, terms of sale were agreed and executed with a buyer in the amount of \$2,853. Taking into account the selling price of the building less costs to sell, we wrote-down the property in September 2002 amounting to \$2,706.

In September 2002, we wrote-down the value of certain laboratory equipment no longer in use, amounting to \$2,053.

Ongoing process automation and increased productivity in the core genetics operations in Reykjavik and changes in some of our target research programs have affected planned volume and timing of usage of materials and supplies. In this connection, we recorded a writedown for excess and obsolete materials and supplies during September 2002.

*Interest Income.* Our interest income was \$2,954 for the year-ended December 31, 2002 as compared to \$6,925 and \$7,378 for the years ended December 31, 2001 and 2000, respectively. In general, the decreased returns are attributable to the decline of prevailing interest rates but also from an overall decrease in our cash balance as we utilize the proceeds of our initial public offering for operations.

*Interest Expense.* Our interest expense was \$3,079 for the year-ended December 31, 2002 as compared to \$440 and \$495 for the years ended December 31, 2001 and 2000, respectively. The increase in interest expense for 2002 reflects the cost of financings put into place during the late part of 2001 and early part of 2002.

*Other non-operating income and expense, net.* Our other non-operating income and (expense), net decreased to a net expense of \$72 for the year-ended December 31, 2002 as compared to a net expense of \$1,675 and a net income of \$1,568 for the years ended December 31, 2001 and 2000, respectively. Our other non-operating income and (expense), net is principally comprised of our share in the earnings (losses) of eMR, foreign exchange differences and unrealized swap gains and losses. The weakening of the U.S. dollar compared to the Icelandic krona during 2002 has been significant and these currency fluctuations may continue to adversely affect our financial results.

*Income Taxes.* As of December 31, 2002, we had an accumulated deficit of \$295,087 and did not owe any Icelandic or U.S. federal income taxes nor did we pay any in the years ended December 31, 2002, 2001 or 2000. Realization of deferred tax assets is dependent on future earnings, if any. As of December 31, 2002, we had net operating losses able to be carried forward for U.S. federal income tax purposes of approximately \$32,204 to offset future taxable income in the United States that expire at various dates through 2021. Also, as of December 31, 2002 our foreign subsidiaries had net operating loss carryforwards of approximately \$107,370 that expire in varying amounts beginning in 2006.

*Net Loss and Basic and Diluted Net Loss Per Share.* Net loss and basic and diluted net loss per share were \$131,886 and \$2.68, respectively, for the year-ended December 31, 2002 as compared to \$52,447 and \$1.26, respectively, for the year-ended December 31, 2001 and \$31,119 and \$1.81, respectively, for the year-ended December 31, 2000. This is an increase of 151% in net loss and an increase of 113% in basic and diluted net loss per share from 2001 to 2002 and an increase of 69% in net loss and a decrease of 30% in basic and diluted net loss per share from 2000 to 2001. The increases in net loss and basic and diluted net loss per share in 2002 are primarily attributable to the impairment, employee termination benefits and other charges recorded offset in part by the higher average number of shares outstanding for the 2002 periods. The difference in the average number of shares outstanding is the result of our acquisition of MediChem in March 2002.

*Pro Forma Net Loss and Basic and Diluted Net Loss Per Share.* Net loss and basic and diluted net loss per share were \$131,886 and \$2.68, respectively, for the year-ended December 31, 2002 as compared to pro

forma net loss and basic and diluted net loss per share calculated assuming our new milestone revenue recognition method is applied retroactively of \$55,364 and \$1.33, respectively, for the year-ended December 31, 2001 and of \$29,994 and \$1.40, respectively, for the year-ended December 31, 2000.

#### **Liquidity and Capital Resources**

We have financed our operations primarily through funding from collaborative agreements and the issuance of equity securities and debt instruments. From the beginning of 1999 to-date, we have received cash of approximately \$98.4 million from collaborative research agreements, \$183 million from the issuance of common stock, \$79 million from the issuance of preferred stock and warrants, and \$64 million from privately placed bonds, bank loans and equipment financing. To date we have received approximately \$82.5 million in research and development funding from Roche. As of December 31, 2002 future funding under terms of our existing agreements is approximately \$46.3 million excluding milestone payments and royalties that we may earn under such collaborations.

*Cash and Cash Equivalents.* As of December 31, 2002, we had \$93,244 in cash and cash equivalents, which includes \$6.0 million in connection with various of our financings that is restricted as to its use. Available cash is invested in accordance with our investment policy's primary objectives of liquidity, safety of principal and diversity of investments. Our cash is deposited only with financial institutions in Iceland, the United Kingdom and the United States having a high credit standing. This cash is largely invested in U.S. dollar denominated money market and checking accounts and also in Icelandic krona denominated accounts.

*Operating Activities.* Working capital needs resulted in the net use of \$3,228 of funds in the year-ended December 31, 2002 as compared to \$10,717 that was provided by working capital sources in the year-ended December 31, 2001. On account of this and significant non-cash impairment and other charges in 2002, although net loss increased \$79,439 in 2002 as compared to 2001, net cash used in operating activities increased \$31,691 in 2002 as compared to 2001. Notably, in 2002 we made significant payments to our vendors and particularly to ABG for reagents, other supplies and DNA analyzers. In addition, and as more fully discussed above, we have particularly continued to make significant investments in our disease-gene research programs and have taken on the costs of downstream work on targets already identified as well as have expanded our sales efforts across our businesses. On the basis of our current range of activities, and following the implementation of a plan to reduce headcount and maximize the use of automation in our core genetics operations, we anticipate that we will be able to achieve positive cashflow from operations by the end of 2003. At the same time, we believe that the initiation of possible substantial new activities within this timeframe, such as clinical trials of a drug against one of our proprietary targets, would require additional expenditures that could delay for some time our achievement of positive cashflow from operations.

*Investing Activities.* Our investing activities have consisted of capital expenditures and long-term strategic equity investments in, and acquisitions of, technologies and businesses that are complementary to our business. Purchases of property and equipment during the year ended December 31, 2002 were \$15,637 as compared to \$47,681 and \$15,470 in the years-ended December 31, 2001 and 2000, respectively, primarily due to the expansion of our facilities and operations. Notably, in 2002 we expended \$5.7 million in respect of the new building to house our operations in the University District of Reykjavik and purchased new DNA analyzers under our supply agreement with ABG in the total amount of \$2.8 million. During 2001, we expended \$23.7 million in respect of our new headquarters building and we paid \$13.1 million for DNA analyzers acquired late in 2000. Cash acquired in the purchase of MediChem was \$3.3 million and we paid \$3.9 million of transaction costs, resulting in a net cash outlay for 2002 in connection with the acquisition of \$571. Net cash used in investing activities may in the future fluctuate significantly from period to period due to the timing of our capital expenditures and other investments.

*Financing Activities.* Net cash of \$699 was provided in financing activities in the year-ended December 31, 2002 as compared to \$28,077 and \$196,865 provided in financing activities in the years-ended December 31, 2001 and 2000, respectively. \$14 million of cash that was restricted as of December 31, 2001 was provided in 2002 in the final financing (Tiers C and D) of our new headquarters facility. In addition, we repaid the existing mortgage on our Woodridge, IL discovery center (\$11.9 million) and re-financed the

property in June 2002, resulting in proceeds of \$5.8 million. Net cash provided by financing activities in 2001 was principally due to the financing of certain equipment and of our new headquarters facility and, as a result, installment payments on capital lease obligations have increased in 2002. We expect to continue to finance future property and equipment purchases through similar such leasing arrangements. Net cash provided by financing activities in 2000 was largely due to approximately \$182 million of net proceeds from our July 2000 initial public offering.

In December 2001, we established a \$27.5 million bridge loan with an Icelandic financial institution to finance the construction of our new headquarters facility. We repaid the borrowings under the bridge loan in January and March 2002 with the proceeds from our Tier A \$13.5 million bond offering, Tier C \$7.3 million offering of privately placed bonds and Tier D \$6.7 million bank loan. In December 2001, we also entered into a \$4,000 bank loan (Tier B) for the construction of our new headquarters facility. The Tier B bank loan is denominated in U.S. dollars and the principal amount is payable quarterly beginning March 2002. The Tier B bank loan bears annual interest of three-month LIBOR plus 3.0% that is payable quarterly beginning March 2002. The lender may demand prepayment of the Tier B bank loan in certain circumstances.

The Tier A bonds are denominated in Icelandic krona and are linked to the Icelandic Consumer Price Index. The principal amount is payable annually and began in December 2002. The Tier A bonds bear annual interest of 8.5% that is payable annually and also began in December 2002. The Tier C bonds are denominated in Icelandic krona and are linked to the Icelandic Consumer Price Index. The principal amount is payable in March 2007. The Tier C bonds bear annual interest of 12.0% that is payable beginning March 2003. The Tier D bank loan is denominated in U.S. dollars. The principal amount is payable in March 2007. The Tier D bank loan bears annual interest of three-month LIBOR plus 6.0% that is payable quarterly and began in June 2002. Tier C bonds may be prepaid at each interest payment date and the Tier D bank loan may be prepaid on the anniversary date of the loan starting December 2003.

In connection with The Tier A and Tier C bonds, we entered into two cross-currency swaps as economic hedges against foreign exchange rate fluctuations that may occur on the Tier A and Tier C bonds. These outstanding contracts bear annual interest of three-month LIBOR plus 2.85% and twelve-month LIBOR plus 6%, respectively.

In connection with the Tier C bonds and the Tier D bank loan, we issued a warrant giving the holder the right to purchase a total of 933,800 shares of our common stock at \$15.00 per share, as adjusted. The warrants expire in March 2007 and convert into shares of our common stock automatically in the event the market value of a share of our common stock should exceed \$24.00 for thirty consecutive days of trading.

In April 2002, we repaid the existing loan that had been assumed in the acquisition of MediChem (\$11,880). In June 2002, we executed a mortgage for \$11,800 with a financial institution for our Woodridge, IL discovery center. The debt carries an interest rate of three-month LIBOR + 1.75%, is payable in monthly installments of \$49 for five years with a final payment of \$8,800 due in 2007. The mortgage is collateralized by restricted cash reserves totaling \$6.0 million.

In November 2002, we established a \$2,200 mortgage loan with an Icelandic financial institution. The bank loan is denominated in U.S. dollars and bears annual interest rate of 6 month LIBOR plus 1.95% that is payable in semi-annual installments of \$73 beginning June 2003 with a final payment of \$1,835 due in 2005.

On April 5, 2001, MediChem Life Sciences, Inc., entered into a Master Security Agreement with General Electric Capital Corporation (G.E. Capital). This credit facility provides for revolving credit loans in the aggregate amount of \$4,000. During 2002, we entered into two promissory notes associated with this credit facility. These notes were for \$266 and \$193 and bear interest at fixed rates of 8.57% and 8.52%, respectively. The terms of the notes are four years and are payable in equal monthly payments based on a 48-month amortization plus interest. The notes are collateralized by the equipment purchased.

In the ordinary course of business, we are contingently liable for performance under a standby letter of credit totaling \$1,286 at December 31, 2002.



*Contractual Commitments.* Our major outstanding contractual commitments relate to the privately placed bonds and bank loans, equipment lease financings and our license for the Icelandic health sector database. Our contractual commitments as of December 31, 2002 were as follows:

	Payments Due by Period				
	Total	Less Than 1 Year	2-3 Years	4-5 Years	Due Thereafter
(In thousands)					
Long-term debt .....	\$49,204	\$ 4,243	\$10,133	\$31,715	\$3,113
Capital lease obligations, including interest ..	9,875	4,655	4,982	200	38
Operating leases .....	3,542	1,478	1,808	256	0
Icelandic health sector database license .....	8,670	867	1,734	1,734	4,335
	<u>\$71,291</u>	<u>\$11,243</u>	<u>\$18,657</u>	<u>\$33,905</u>	<u>\$7,486</u>

*General.* Following the implementation in September 2002 of a plan to reduce headcount and maximize the use of automation in our core genetics operations and based upon current plans, we believe that our existing resources will be adequate to satisfy our capital needs for several years. Our cash requirements depend on numerous factors, including our ability to obtain new research collaboration agreements, to obtain subscription and collaboration agreements for the database services; to obtain and maintain contract service agreements in our chemistry services and clinical research trials groups; expenditures in connection with alliances, license agreements and acquisitions of and investments in complementary technologies and businesses; competing technological and market developments; the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights; the purchase of additional capital equipment, including capital equipment necessary to ensure that our sequencing and genotyping operations remain competitive; and capital expenditures required to expand our facilities. Changes in our research and development plans, the entry into clinical trials of a drug based on our discoveries, or other changes affecting our operating expenses may result in changes in the timing and amount of expenditures of our capital resources.

We will require significant additional capital in the future, which we may seek to raise through further public or private equity offerings, additional debt financing or added collaborations and licensing arrangements. No assurance can be given that additional financing or collaborations and licensing arrangements will be available when needed, or that if available, will be obtained on favorable terms. If adequate funds are not available when needed, we may have to curtail operations or attempt to raise funds on unattractive terms.

*Recent Accounting Pronouncements.* In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. It requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. We are required to adopt SFAS No. 143 for fiscal year 2003 and we do not believe its adoption will have a significant impact on our financial position or results of operations.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections." SFAS No. 145 rescinds FASB Statement No. 4 (FAS 4), "Reporting Gains and Losses from Extinguishment of Debt", the amendment to FAS 4, FASB Statement No. 64 (FAS 64), "Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements", and FASB Statement No. 44, "Accounting for Intangible Assets of Motor Carriers". In addition, SFAS No. 145 amends paragraph 14(a) of FASB Statement No. 13, Accounting for Leases, to eliminate an inconsistency between the accounting for sale-leaseback transactions and certain lease modifications that have economic effects that are similar to sale-leaseback transactions and makes several other technical corrections to existing pronouncements. We are required to adopt FAS 145 for fiscal year 2003 and do not believe its adoption will have a significant impact on our financial position or results of operations.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" ("SFAS 146"). This statement addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies EITF Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)" ("EITF 94-3"). SFAS 146 requires that a liability for a cost associated with an exit cost liability to be recognized at the date of an entity's commitment to an exit plan. SFAS 146 also requires that liabilities recorded in connection with exit plans be initially measured at fair value. We are required to adopt SFAS No. 146 for exit or disposal activities that are initiated from fiscal year 2003 and do not believe its adoption will have a significant impact on our financial position or results of operations.

In December 2002, the FASB SFAS No. 148 "Accounting for Stock-Based Compensation — Transition and Disclosure" (FAS 148) amending FASB SFAS No. 123 "Accounting for Stock-Based Compensation". FAS 148 provides two additional alternative transition methods for recognizing an entity's voluntary decision to change its method of accounting for stock-based employee compensation to the fair-value method. In addition, FAS 148 amends the disclosure requirements of FAS 123 so that entities will have to (1) make more-prominent disclosures regarding the pro forma effects of using the fair-value method of accounting for stock-based compensation, (2) present those disclosures in a more accessible format in the footnotes to the annual financial statements, and (3) include those disclosures in interim financial statements. FAS 148's transition guidance and provisions for annual disclosures are effective for our fiscal year-ended December 31, 2002. The provisions for interim-period disclosures are effective for financial reports that contain financial statements for interim periods beginning after January 1, 2003.

In November 2002, the FASB issued Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" (FIN 45). FIN 45 elaborates on the disclosures we must make about obligations under certain guarantees that we may issue. FIN 45 also requires us to recognize, at the inception of a guarantee, a liability for the fair value of the obligations undertaken in issuing the guarantee. The initial recognition and initial measurement provisions are to be applied only to guarantees issued or modified after December 31, 2002. We have adopted the disclosure provisions as required by FIN 45 and are still evaluating the potential impact of FIN 45 on our financial position and results of operations.

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period beginning after June 15, 2003. We do not expect FIN 46 to have a material effect on our consolidated financial statements.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21 ("EITF 00-21"), "Revenue Arrangements with Multiple Deliverables." EITF 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. We are still evaluating the potential impact of EITF 00-21 on our financial position and results of operations.

#### **Item 7A. *Quantitative and Qualitative Disclosures About Market Risk***

The primary objective of our investment activities is to preserve principal while maximizing income we receive from our investments without significantly increasing risk. Some of the securities in our investment portfolio may be subject to market risk. This means that a change in prevailing interest rates may cause the market value of the investment to fluctuate. For example, if we hold a security that was issued with a fixed interest rate at the then-prevailing rate and the prevailing interest rate later rises, the market value of our

investment will probably decline. To minimize this risk in the future, we intend to maintain our portfolio of cash equivalents and short-term investments in a variety of securities, including commercial paper, money market funds and government and non-government debt securities. In general, money market funds are not subject to market risk because the interest paid on such funds fluctuates with the prevailing interest rate. As of December 31, 2002, all of our cash and cash equivalents were in money market and checking accounts.

We are exposed to market risks from changes in foreign currency exchange rates, interest rates and investment prices. These changes may adversely affect our operating results and financial condition. We seek to manage these risks through regular operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments. We control and manage foreign exchange risk, interest rate risk, and investment price risk by continually monitoring changes in key economic indicators and market information.

As a consequence of the nature our business and operations our reported financial results and cash flows are exposed to the risks associated with fluctuations in the exchange rates of the U.S. dollar, the Icelandic krona and other world currencies. We continue to monitor our exposure to currency risk but have not yet purchased instruments to hedge these general risks through the use of derivative financial instruments.

We hold various interest rate sensitive assets and liabilities to manage the liquidity and cash needs of our day-to-day operations. As a result, we are exposed to risks due to changes in interest rates. In order to mitigate risks associated with interest rate sensitive liabilities we use interest rate derivative instruments, such as cross currency interest rate swaps, and may in future use other instruments to achieve the desired interest rate maturities and asset/liability structures.

We are exposed to credit (or repayment) risk, as well as market risk from the use of derivative instruments. If the counterparty fails to fulfill its performance obligations under a derivative contract, our credit risk will equal the positive market value in a derivative. Consequently, when the fair market value of a derivative contract is positive, this indicates that the counterparty owes us, thus creating a repayment risk for us. When the fair market value of a derivative contract is negative, we owe the counterparty and therefore, assume no repayment risk.

In order to minimize the credit risk in derivative instruments, we enter into transactions with high quality counterparties such as financial institutions that satisfy our established credit approval criteria. We review the credit ratings of such counterparties on a regular basis.

#### **Item 8. *Financial Statements and Supplementary Data***

The financial statements required to be filed pursuant to this Item 8 are appended to this Annual Report on Form 10-K. A list of the financial statements filed herewith is found at "Index to Financial Statements and Schedules" on page F-1.

#### **Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not applicable.

### **PART III**

#### **Item 10. *Directors and Executive Officers of the Company***

For information concerning this item, see the information under "Election of Directors," "Executive Officers" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement to be filed with respect to the 2003 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**Item 11. *Executive Compensation***

For information concerning this item, see the information under "Executive Compensation" in the Company's Proxy Statement to be filed with respect to the 2003 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**Item 12. *Security Ownership of Certain Beneficial Owners and Management***

For information concerning this item, see the information under "Security Ownership of Certain Beneficial Owners and Management" in the Company's Proxy Statement to be filed with respect to the 2003 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**Item 13. *Certain Relationships and Related Transactions***

For information concerning this item, see the information under "Certain Relationships and Related Transactions" in the Company's Proxy Statement to be filed with respect to the 2003 Annual Meeting of Stockholders, which information is incorporated herein by reference.

**Item 14. *Controls and Procedures***

(a) *Evaluation of Disclosure Controls and Procedures.* Within the 90 days prior to the date of this Annual Report on Form 10-K, our Chief Executive Officer and our Chief Financial Officer evaluated the effectiveness of deCODE's disclosure controls and procedures as defined in Rule 13a-14(c) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon that evaluation, the Chief Executive Officer and the Chief Financial Officer have concluded that, except as described below, deCODE's current disclosure controls and procedures are adequate and effective to ensure that information required to be disclosed in the reports deCODE files under the Exchange Act is recorded, processed, summarized and reported on a timely basis.

The Company's receipt of a letter from Applied Biosystems Group (ABG) to the Company containing notice of ABG's termination of the Joint Development and Collaboration Agreement between it and the Company was not communicated to deCODE's management in a timely fashion. We have determined that this resulted from the fact that management inadvertently modified the notice provision of the Agreement in a manner that resulted in the delivery of the notice of termination to a non-executive officer, who failed to recognize its significance. We are implementing changes to our disclosure controls and procedures as they relate to (1) notice provisions in, and waivers and amendments of, our contracts and (2) identification of, and communication by, non-executive personnel of deCODE of any material information that they may receive.

During the fiscal 2002 financial reporting process, management identified a deficiency in our accounting for two cross-currency swaps in estimating and recording the estimated fair value of swaps according to our stated accounting policy. This deficiency in internal controls was considered a reportable condition under standards established by the American Institute of Certified Public Accountants and was reported to the Company's Audit Committee by its independent accountants in April 2003. We are implementing changes to our financial closing procedures, including timely supervisory review of our accounting for the two cross-currency swaps.

(b) *Changes in Internal Controls.* There have been no significant changes in the Company's internal controls or in other factors that could significantly affect internal controls subsequent to the date of their evaluation by the Chief Executive Officer and the Chief Financial Officer.

## PART IV

### Item 16. *Exhibits, Financial Statement Schedules, and Reports on Form 8-K*

(a) The following documents are included as part of this Annual Report on Form 10-K:

#### 1. Financial Statements:

	<u>Page</u>
Reports of Independent Accountants .....	F-2, F-3
Consolidated Statements of Operations.....	F-4
Consolidated Balance Sheets .....	F-5
Consolidated Statements of Changes in Stockholders' Equity (Deficit) .....	F-6
Consolidated Statements of Cash Flows .....	F-8
Notes to Consolidated Financial Statements .....	F-9

2. All schedules are omitted as the information required is inapplicable or the information is presented in the consolidated financial statements or the related notes.

#### 3. Exhibits:

<u>Exhibit Number</u>	<u>Description</u>
2.1	Agreement and Plan of Merger dated as of January 7, 2002, by and among deCODE genetics, Inc., Saga Acquisition Corp, and MediChem Life Sciences, Inc. (Incorporated by reference to Annex A to the Proxy Statement/Prospectus included in Pre-Effective Amendment No. 1 to deCODE's Registration Statement on Form S-4 (Registration No. 333-81848) filed on February 12, 2002).
3.1	Amended and Restated Certificate of Incorporation, as further amended (Incorporated by reference to Exhibit 3.1 and Exhibit 3.3 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
3.2	Bylaws, as amended (Incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
3.3	Certificate of Amendment to Amended and Restated Certificate of Incorporation dated August 30, 2002 (Incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q filed on November 14, 2002).
4.1	Specimen Common Stock Certificate (Incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
4.2	Form of Warrant to Purchase Series A Preferred Stock (Incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
4.3	Form of Warrant to Purchase Series C Preferred Stock (Incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
4.4	Warrant Certificate, dated May 6, 2002 issued to Islandsbanki-FBA hf. (Incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
4.5	Form of Indexed Bond (Tier A) (Incorporated by reference to Exhibit 4.2 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
4.6	Form of Indexed Bond (Tier C) (Incorporated by reference to Exhibit 4.3 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).

<u>Exhibit Number</u>	<u>Description</u>
10.1	Form of License from The Icelandic Data Protection Commission (now, The Icelandic Data Protection Authority) to Islensk erfðagreining ehf. and its Clinical Collaborators to Use and Access Patient Records and Other Clinical Data Relating to Individuals (Incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.2*	1996 Equity Incentive Plan, as amended (Incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-8 (Registration No. 333-56996) filed on March 14, 2001).
10.3*	Form of Non-Statutory Stock Option Agreement, as executed by employees and officers of deCODE genetics, Inc. who received non-statutory stock options
10.4*	Form of Employee Proprietary Information and Inventions Agreement (Incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.5	Agreement on the Collaboration of Fridrik Skulason (FS) and Islensk erfðagreining ehf. (IE) on the Creation of a Database of Icelandic Genealogy, dated April 15, 1997 (Incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.6*	Consultancy Contract between deCODE genetics, Inc. and Vane Associates, dated August 30, 2002.
10.7*	Indemnity Agreement between deCODE genetics, Inc. and Sir John Vane, dated December 1, 1997 (Incorporated by reference to Exhibit 10.8 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.8*	Amended and Restated Non-Recourse Promissory Note between deCODE genetics, Inc. and Hannes Smarason, dated March 24, 1999 (Incorporated by reference to Exhibit 10.10 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.9	Amended and Restated Investor rights Agreement of deCODE genetics, Inc., dated as of February 2, 1998, as further amended and restated (Incorporated by reference to Exhibit 10.12 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.10	Co-operation Agreement between Reykjavik Hospital and Islensk erfðagreining ehf., dated November 4, 1998 (Incorporated by reference to Exhibit 10.22 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.11	Co-operation Agreement between the Iceland State Hospital and Islensk erfðagreining ehf., dated December 15, 1998 (Incorporated by reference to Exhibit 10.24 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.12*	Non-Recourse Promissory Note between deCODE genetics, Inc. and Hannes Smarason, dated September 15, 1999 (Incorporated by reference to Exhibit 10.35 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.13	Agreement between The Minister for Health and Social Security and Islensk erfðagreining ehf. relating to the Issue of an Operating License for the Creation and Operation of a Health Sector Database, dated January 21, 2000 (Incorporated by reference to Exhibit 10.39 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).

<u>Exhibit Number</u>	<u>Description</u>
10.14	Operating License issued to Islensk erfðagreining ehf., for the Creation and Operation of a Health Sector Database, dated January 22, 2000 (Incorporated by reference to Exhibit 10.40 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.15*	Form of Employee Confidentiality, Invention Assignment and Non-Compete Agreement executed by certain officers (Incorporated by reference to Exhibit 10.44 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.16	Series C Preferred Stock and Warrant Purchase Agreement between Roche Finance Ltd and deCODE genetics, Inc., dated as of February 1, 1998 (Incorporated by reference to Exhibit 10.45 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.17*	Employment Agreement between Islensk erfðagreining ehf. and Hakon Gudbjartson, dated May 5, 1999 (Incorporated by reference to Exhibit 10.52 to the Company's Annual Report on Form 10K filed March 23, 2001).
10.18	Form of Contract on the Processing of Clinical Data and their Transfer to a Health Sector Database between several Health Institutions and Islensk erfðagreining ehf. (Incorporated by reference to Exhibit 10.58 to the Company's Annual Report on Form 10-K filed March 23, 2001).
10.19*	Amended and Restated Promissory Note, dated January 1, 2001, by Hannes Smarason and the Company (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2001).
10.20*	Employment and Amended and Restated Employee Confidentiality, Invention Assignment and Non-Compete Agreement between deCODE genetics, Inc. and Mark Gurney, dated as of August 21, 2000 and signed on August 13, 2001 (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.21*	Employment and Employee Confidentiality, Invention Assignment and Non-Compete Agreement between deCODE genetics, Inc. and Lance Thibault, dated February 1, 2001 and signed on June 20, 2001 (Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.22*	Employment Agreement between deCODE genetics, Inc. and Michael W. Young dated June 4, 2001 (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.23†	Collaboration and Cross-License Agreement Re. Diagnostics between F.Hoffman-La Roche Ltd. AG and deCODE genetics, ehf dated as of June 29, 2001 (Incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2001).
10.24	Contract on Financial Leasing between Lysing hf, and Islensk erfðagreining ehf., dated as of December 13, 2001. (Incorporated by reference to Exhibit 10.36 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.25	Land Lease Agreement between the City of Reykjavik and Islensk erfðagreining ehf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.37 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.26	Agreement on the Details of the Arrangement of Encumbrances in the Site Agreement between the University of Iceland and Islensk erfðagreining ehf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K filed March 27, 2002).

<u>Exhibit Number</u>	<u>Description</u>
10.27	Annex to the Agreement on the Details of the Arrangement of Encumbrances in the Site Agreement between the University of Iceland and Islensk erfdagreining ehf., dated as of January 4, 2002. (Incorporated by reference to Exhibit 10.39 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.28#	Loan Agreement between Sturlugata 8 ehf. (now named Vetrargardurinn ehf.) and Islandsbanki-FBA hf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.40 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.29	Currency Exchange Agreement between Sturlugata 8 ehf. (now named Vetrargardurinn ehf.) and Islandsbanki-FBA hf., dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.42 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.30	General Bond with Consumer Price Index between Islandsbanki-FBA, hf. and Sturlugata 8 ehf., (now named Vetrargardurinn ehf.) dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.44 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.31	General Bond with Consumer Price Index between Islandsbanki-FBA hf. and Sturlugata 8 ehf., (now named Vetrargardurinn ehf.) dated as of December 21, 2001. (Incorporated by reference to Exhibit 10.45 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.32#	Research Collaboration and Cross-License Agreement among F.Hoffman-La Roche Ltd and Hoffman-La Roche Inc. and deCODE genetics, ehf. (Islensk erfdagreining), effective as of February 1, 2002. (Incorporated by reference to Exhibit 10.46 to the Company's Annual Report on Form 10-K filed March 27, 2002).
10.33	Currency Exchange Agreement between Vetrargardurinn ehf. and Islandsbanki-FBA hf., dated as of March 13, 2002 (Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
10.34	General Bond with Consumer Price Index between Islandsbanki-FBA hf. and Vetrargardurinn ehf., dated as of February 8, 2002 (Incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
10.35†	Loan Agreement between Islandsbanki-FBA hf. and Vetrargardurinn ehf., dated as of March 13, 2002 (Incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed on May 15, 2002).
10.36*	Promissory Note, dated May 27, 2002 from Hakon Gudbjartsson to the Company (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on August 14, 2002).
10.37*	Amended and Restated Promissory Note dated January 29, 1998 from Hakon Gudbjartsson to the Company.
10.38†	Research Collaboration and License Agreement, dated September 26, 2002, between deCODE genetics, Inc., deCODE genetics, ehf., and Merck & Co., Inc. (Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on November 14, 2002).
10.39	Nondisclosure Agreement executed by Vane Associates as of December 1, 1997, as amended (Incorporated by reference to Exhibit 10.7 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
10.40*	2002 Equity Incentive Plan
21.1	Subsidiaries of deCODE genetics, Inc.
23.1	Consent of PricewaterhouseCoopers LLP, independent accountants.
23.2	Consent of PricewaterhouseCoopers ehf, independent accountants.



<u>Exhibit Number</u>	<u>Description</u>
99.1	Government Regulation on a Health Sector Database, dated January 22, 2000 (Incorporated by reference to Exhibit 99.1 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
99.2	Act. No. 139/1998 on a Health Sector Database (Incorporated by reference to Exhibit 99.2 to the Company's Registration Statement on Form S-1 (Registration No. 333-31984) which became effective on July 17, 2000).
99.3	Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

† Certain portions of this exhibit have been granted confidential treatment by the Commission. The omitted portions have been separately filed with the Commission.

\* Constitutes a management contract or compensatory plan or arrangement.

# A request for confidential treatment had been submitted with respect to this exhibit. The copy which was filed as an exhibit omits the information subject to the request for confidential treatment.

*Note:* Unless otherwise noted, the SEC File number of each of the above referenced documents is 000-30469.

**(b) Reports on Form 8-K**

We did not file any reports on Form 8-K during the quarter ended December 31, 2002.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

deCODE genetics, Inc.

By:

/s/ KÁRI STEFÁNSSON    APRIL 15, 2003

Dr. Kári Stefánsson, President and  
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/        DR. KÁRI STEFÁNSSON</u> Dr. Kári Stefánsson	Chairman, President, Chief Executive Officer and Director (principal executive officer)	April 15, 2003
<u>/s/        LANCE THIBAUT</u> Lance Thibault	Chief Financial Officer and Treasurer (principal financial officer)	April 15, 2003
<u>/s/        JEAN-FRANCOIS FORMELA</u> Jean-Francois Formela	Director	April 15, 2003
<u>/s/        TERRANCE MCGUIRE</u> Terrance McGuire	Director	April 15, 2003
<u>/s/        SIR JOHN VANE</u> Sir John Vane	Director	April 15, 2003
<u>/s/        ANDRE LAMOTTE</u> Andre LaMotte	Director	April 15, 2003

I, Dr. Kári Stefánsson, Chief Executive Officer, certify that:

1. I have reviewed this annual report on Form 10-K of deCODE genetics, Inc.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements and other financial information included in this annual report fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ KÁRI STEFÁNSSON

Dr. Kári Stefánsson  
Chief Executive Officer

Dated: April 15, 2003

I, Lance E. Thibault, Chief Financial Officer, certify that:

1. I have reviewed this annual report on Form 10-K of deCODE genetics, Inc.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements and other financial information included in this annual report fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ LANCE E. THIBAUT

Lance E. Thibault  
Chief Financial Officer

Dated: April 15, 2003

**deCODE genetics, Inc.**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

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## REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders of deCODE genetics, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statement of operations, changes in stockholders' equity (deficit) and cash flows present fairly, in all material respects, the financial position of deCODE genetics, Inc. and its subsidiaries December 31, 2002 and the results of their operations and their cash flows for the year ended December 31, 2002 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As discussed in the footnote to the consolidated financial statements titled "Revenue", effective January 1, 2002 the Company changed its method of recognizing milestone revenue.

/s/ PricewaterhouseCoopers LLP  
Boston, Massachusetts  
April 2, 2003

## REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders of deCODE genetics, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, changes in stockholders' equity (deficit) and cash flows present fairly, in all material respects, the financial position of deCODE genetics, Inc. and its subsidiaries at December 31, 2001 and 2000 and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

PricewaterhouseCoopers ehf

Reykjavik, Iceland

March 18, 2002 except for the footnote to the 2001  
financial statements titled "Restatement of Consolidated  
Financial Statements" (not shown herein) for which the  
date is April 2, 2003

## deCODE genetics, Inc.

## CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years Ended December 31,		
	2002	2001	2000
	(In thousands, except share and per share amounts)		
Revenue .....	\$ 41,065	\$ 26,099	\$ 21,545
Operating expenses			
Research and development, including cost of revenue ....	86,641	70,954	45,742
Selling, general and administrative .....	21,656	12,402	15,373
Impairment, employee termination benefits and other charges .....	64,790	0	0
Total operating expenses .....	173,087	83,356	61,115
Operating loss .....	(132,022)	(57,257)	(39,570)
Interest income .....	2,954	6,925	7,378
Interest expense .....	(3,079)	(440)	(495)
Other non-operating income and (expense), net .....	(72)	(1,675)	1,568
Net loss before cumulative effect of change In accounting principle .....	(132,219)	(52,447)	(31,119)
Cumulative effect of change in milestone revenue recognition method .....	333	0	0
Net loss .....	(131,886)	(52,447)	(31,119)
Accrued dividends and amortized discount on preferred stock .....	0	0	(7,541)
Net loss available to common stockholders .....	\$ (131,886)	\$ (52,447)	\$ (38,660)
Basic and diluted net loss per share:			
Net loss before cumulative effect of change in accounting principle .....	\$ (2.69)	\$ (1.26)	\$ (1.81)
Cumulative effect of change in milestone revenue recognition method .....	0.01	0.00	0.00
Net loss .....	(2.68)	(1.26)	(1.81)
Shares used in computing basic and diluted net loss per share .....	49,098,254	41,634,009	21,381,256
Pro forma amounts assuming new milestone revenue recognition method is applied retroactively:			
Revenue .....		\$ 23,182	\$ 22,670
Net loss .....		(55,364)	(29,994)
Basic and diluted net loss per share .....		(1.33)	(1.40)

The accompanying notes are an integral part of the consolidated financial statements.



**deCODE genetics, Inc.**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2002	2001
	(In thousands, except share amounts)	
<b>Assets</b>		
Current assets:		
Cash and cash equivalents .....	\$ 87,244	\$ 153,061
Restricted cash .....	0	14,000
Receivables .....	5,417	9,525
Other current assets .....	9,437	9,748
Total current assets .....	102,098	186,334
Restricted cash .....	6,000	0
Property and equipment, net .....	83,499	61,208
Goodwill .....	8,863	0
Other long-term assets and deferred charges .....	12,957	2,358
Total assets .....	<u>\$ 213,417</u>	<u>\$ 249,900</u>
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Accounts payable and accrued expenses .....	\$ 15,478	\$ 21,165
Current portion of capital lease obligations .....	4,311	4,855
Current portion of long-term debt .....	4,243	2,572
Deferred research revenue .....	7,606	6,147
Total current liabilities .....	31,638	34,739
Capital lease obligations, net of current portion .....	5,008	9,922
Long-term debt, net of current portion .....	44,961	28,929
Deferred research revenue .....	6,557	5,150
Other long-term liabilities .....	7	427
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value;		
Authorized: 6,716,666 shares;		
Issued and outstanding: none .....	0	0
Common stock, \$0.001 par value;		
Authorized: 100,000,000 shares;		
Issued and outstanding: 53,695,869 and 53,545,234, respectively, at		
December 31, 2002; and 45,328,227 and 45,257,386, respectively, at		
December 31, 2001 .....	54	45
Additional paid-in capital .....	431,494	351,960
Notes receivable .....	(7,607)	(10,788)
Deferred compensation .....	(2,642)	(6,174)
Accumulated deficit .....	(295,087)	(163,201)
Accumulated other comprehensive income (loss) .....	(1)	53
Treasury stock, 150,635 and 70,841 shares stated at cost at December 31,		
2002 and 2001, respectively .....	(965)	(1,162)
Total stockholders' equity .....	125,246	170,733
Total liabilities and stockholders' equity .....	<u>\$ 213,417</u>	<u>\$ 249,900</u>

The accompanying notes are an integral part of the consolidated financial statements.

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)

	Shares		Additional Paid-In Capital	Notes Receivable	Deferred Compensation	Dividends Accreted on Redeemable, Convertible Preferred Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity (Deficit)
	Common Stock	Par Value								
	(In thousands, except share amounts)									
Balance at December 31, 1999	9,604,012	\$10	\$ 35,072	\$ (9,598)	\$(12,550)	\$(8,385)	\$ (77,324)	\$ 3	\$ 0	\$(72,772)
Common stock issued upon initial public offering, net of issuance cost	11,040,000	11	181,941							181,952
Issuance of common stock upon exercise of warrants	306,943	0	(0)							0
Other issuances of common stock	165,910	0	3,670		(666)					3,004
Redeemable, convertible preferred stock converted to common stock	23,737,081	24	118,735			13,615				132,374
Beneficial conversion feature of issuance of Series C preferred stock			2,041							2,041
Accretion of dividends and amortization of discount on preferred stock						(5,230)	(2,311)			(7,541)
Forfeiture of unvested common stock issued upon early exercise of stock options	(26,977)			109	186				(295)	(0)
Issuance of common stock upon exercise of stock options	215,000	0	2,130	(2,362)					295	63
Deferred compensation arising from stock options			6,810		(6,810)					0
Amortization of deferred compensation					8,271					8,271
Comprehensive income (loss):										
Net loss for the period							(31,119)			(31,119)
Other comprehensive income (loss):										
Foreign currency translation								(4)		(4)
Total comprehensive income (loss)										(31,123)
Balance at December 31, 2000	45,041,969	\$45	\$350,399	\$(11,851)	\$(11,569)	\$ 0	\$(110,754)	\$(1)	\$ 0	\$216,269

The accompanying notes are an integral part of the consolidated financial statements.

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)

	Shares		Additional Paid-In Capital	Notes Receivable	Deferred Compensation	Dividends Accreted on Redeemable, Convertible Preferred Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity (Deficit)
	Common Stock	Par Value								
	(In thousands, except share amounts)									
Balance at December 31, 2000 . . .	45,041,969	\$45	\$350,399	\$(11,851)	\$(11,569)	\$ 0	\$(110,754)	\$(1)	\$ 0	\$ 216,269
Issuance of common stock upon exercise of warrants . . . . .	94,444	0	(0)							0
Other issuances of common stock	191,814	0	1,555							1,555
Forfeiture of unvested common stock issued upon early exercise of stock options . . . . .	(70,841)			410	750				(1,162)	(2)
Payment of notes . . . . .				653						653
Deferred compensation arising from stock options . . . . .			6		(6)					0
Amortization of deferred compensation . . . . .					4,651					4,651
Comprehensive income (loss):										
Net loss for the period . . . . .							(52,447)			(52,447)
Other comprehensive income (loss):										
Foreign currency translation . . . . .								54		54
Total comprehensive income (loss): . . . . .										(52,393)
Balance at December 31, 2001 . . .	45,257,386	45	351,960	(10,788)	(6,174)	0	(163,201)	53	(1,162)	170,733
Issuance of common stock on acquisition of MediChem . . . . .	8,362,893	9	78,955						3,332	82,296
Issuance of common stock upon exercise of warrants . . . . .	141,665	0	(0)							0
Issuance of common stock upon exercise of stock options . . . . .	38,813	0	48							48
Other issuances of common stock	20,508	0	131							131
Issuance of warrants in connection with financing . . . . .			696							696
Forfeitures and cancellations of common stock issued upon early exercise of stock options . .	(276,031)			2,947	188				(3,135)	0
Forfeiture of options . . . . .			(296)		296					0
Payment of notes . . . . .				234						234
Amortization of deferred compensation . . . . .					3,048					3,048
Comprehensive income (loss):										
Net loss for the period . . . . .							(131,886)			(131,886)
Other comprehensive income (loss):										
Foreign currency translation . . . . .								(54)		(54)
Total comprehensive income (loss): . . . . .										(131,940)
Balance at December 31, 2002 . . .	53,545,234	\$54	\$431,494	\$(7,607)	\$(2,642)	\$ 0	\$(295,087)	\$(1)	\$(965)	\$ 125,246

The accompanying notes are an integral part of the consolidated financial statements.

deCODE genetics, Inc.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
	2002	2001	2000
	(In thousands)		
<b>Cash flows from operating activities:</b>			
Net loss	\$(131,886)	\$(52,447)	\$(31,119)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	13,753	10,028	5,204
Purchased in-process research and development	480	0	0
Equity in net loss of affiliate	563	462	738
Amortization of deferred stock compensation	3,048	4,651	8,271
Other stock-based remuneration and stock contributions	0	53	3,610
Loss on disposal of equipment	475	787	0
Impairment of property, equipment and intangibles	7,474	0	0
Impairment of goodwill	53,400	0	0
Charges for write-down of obsolete and excess materials and supplies	3,352	2,961	0
Litigation settlement	0	1,293	0
Unrealized (gain) loss on derivative financial instruments	(1,116)	223	0
Accrued interest on receivable from share issuance	0	0	894
Other	524	25	(794)
Changes in operating assets and liabilities net of effect of acquisitions:			
Receivables	9,402	(4,259)	(7,205)
Other current assets	137	(2,672)	(4,466)
Accounts payable and accrued expenses	(10,258)	11,357	6,316
Deferred research revenue	(2,962)	6,892	2,166
Other	453	(824)	260
Net cash used in operating activities	<u>(53,161)</u>	<u>(21,470)</u>	<u>(16,125)</u>
<b>Cash flows from investing activities:</b>			
Purchase of property and equipment	(15,637)	(47,681)	(15,470)
Investment in affiliated company, net	0	0	(446)
Acquisitions and investments, net	(571)	0	(350)
Proceeds from sale of property and equipment	2,853	0	0
Other	0	(10)	(175)
Net cash used in investing activities	<u>(13,355)</u>	<u>(47,691)</u>	<u>(16,441)</u>
<b>Cash flows from financing activities:</b>			
Issuance of preferred stock and warrants	0	0	34,534
Issuance of common stock, net of offering costs	48	0	182,015
Repurchase of preferred stock	0	0	(17,467)
Repayment of notes receivable for common stock	234	653	0
Forfeiture of common stock	0	(2)	0
Proceeds from facility financings	12,895	31,200	0
Changes in restricted cash	8,000	(14,000)	0
Proceeds from equipment sale-leaseback financing	459	12,000	0
Repayment of mortgage	(11,880)	0	0
Re-payments of debt and capital lease obligations	(9,057)	(1,774)	(2,217)
Net cash provided by financing activities	<u>699</u>	<u>28,077</u>	<u>196,865</u>
Net increase (decrease) in cash	(65,817)	(41,084)	164,299
Cash and cash equivalents at beginning of period	153,061	194,145	29,846
Cash and cash equivalents at end of period	<u>\$ 87,244</u>	<u>\$153,061</u>	<u>\$194,145</u>
<b>Supplemental cash flow information:</b>			
Cash paid for interest	\$ 3,397	\$ 388	\$ 495
<b>Supplemental schedule of non-cash transactions:</b>			
Common stock issued for acquisitions and investments	82,296	210	2,395
Payable for laboratory equipment	0	0	13,150

The accompanying notes are an integral part of the consolidated financial statements.

deCODE genetics, Inc.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(in thousands, except share and per share amounts unless otherwise noted)

*The Company*

References in this report to deCODE and “we” and “us” refer to deCODE genetics, Inc., a Delaware company, and deCODE genetics, Inc.’s wholly owned subsidiary, Islensk erfðagreining ehf., an Icelandic company registered in Reykjavik, and its Icelandic subsidiaries Encode ehf., deCODE Cancer ehf. and Vetrargardurinn ehf. as well as deCODE genetics, Inc.’s wholly owned subsidiary, MediChem Life Sciences, Inc., a Delaware corporation, and its subsidiaries MediChem Research, Inc., ThermoGen, Inc., Emerald BioStructures, Inc., Advanced X-Ray Analytical Services, Inc. and MediChem Management, Inc.

Based in Reykjavik, Iceland, deCODE is a population genetics company developing drugs and DNA-based diagnostics based upon its discoveries in the inherited causes of common diseases. deCODE’s population approach and resources have enabled it to isolate gene and targets directly involved in the development of many diseases posing significant challenges to public health and deCODE is focused on turning these findings into a pipeline of products. deCODE’s customers include major pharmaceutical companies, biotechnology firms, pharmacogenomics companies, universities and other research institutions. deCODE’s business is global, with its principal markets in the United States and in Europe.

deCODE’s historical operations have been in a single business segment, been primarily focused on developing products and services for the healthcare industry from its population-based gene discovery work in Iceland. Broadening that discovery work to development of products, deCODE is organized according to product development offerings and services. deCODE’s product development activities encompass the discovery and commercialization of novel therapeutics designed against targets identified in deCODE’s gene discovery work, as well as the creation of DNA-based diagnostic and pharmacogenomic tests and the development of software systems for making correlations between genetic variation and disease and drug response. deCODE’s service offerings include contract service businesses in drug discovery and medicinal chemistry through its Chicago-based pharmaceuticals group, three-dimensional protein crystallography products and contract services through its Seattle-based biostructures group, pharmacogenomics and clinical trials services through its wholly-owned subsidiary Encode, genotyping services carried-out in Reykjavik, Iceland and bioinformatics services and tools developed in the course of deCODE’s gene and drug target research.

In March 2002, deCODE completed the acquisition of MediChem Life Sciences, Inc. (MediChem) in a stock-for-stock exchange accounted for as a purchase transaction. The acquisition gives deCODE capabilities in chemistry and structural proteomics that will be used in the implementation of its strategy of turning its targets identified by applying population genomics to common diseases into novel drugs for the market both through its own programs and in alliance with collaborators. Originally founded in 1987, MediChem provides contract chemistry research services specializing in chemical synthesis for new drug discovery and development for the global pharmaceutical, biotechnology, agricultural, chemical and personal care industries.

*Basis of Presentation*

These financial statements are reported in United States dollars, deCODE’s functional currency, and prepared in accordance with accounting principles generally accepted in the United States. Amounts are stated in thousands, except share and per share amounts.

*Principles of Consolidation*

The consolidated financial statements include the accounts and operations of deCODE genetics, Inc. and its wholly owned subsidiaries, Islensk erfðagreining ehf. and its subsidiaries, and MediChem Life Sciences, Inc. and its subsidiaries. No dividends have been paid. All significant intercompany accounts and transactions

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

are eliminated upon consolidation. Investments in which deCODE has significant influence, but does not control, are accounted for using the equity method.

*Use of Estimates*

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. On an ongoing basis we evaluate our estimates, which include, among others, those related to collaborative arrangements, property and equipment, income taxes, litigation and other contingencies, materials and supplies, derivatives, intangible assets, and bad debts. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form our basis for making judgments about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from those estimates.

*Uncertainties*

deCODE is subject to risks common to companies in the biotechnology industry including, but not limited to, development by deCODE or its competitors of new technological innovations, ability to market products or services, dependence on key personnel, dependence on key suppliers and notably a single supplier for important laboratory equipment and many of deCODE's materials and supplies, protection of proprietary technology, ability to obtain additional financing, ability to negotiate collaborative arrangements, reliance on the license to create and run the Icelandic Health Sector Database, and compliance with governmental and other regulations.

*Concentration of Risk*

deCODE has no significant off-balance sheet concentration of credit risk such as foreign exchange contracts, option contracts or other foreign hedging arrangements. Financial instruments that potentially subject deCODE to concentrations of credit risk consist principally of temporary cash investments. deCODE's cash is deposited only with financial institutions in Iceland, United Kingdom and the United States having a high credit standing. Deposits with banks may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand and, therefore, bear minimal risk.

*Fair Value of Financial Instruments*

The fair value of short-term financial instruments, including cash and cash equivalents, restricted cash, receivables, certain other current assets, trade accounts payable, certain accrued liabilities, and other current liabilities approximates their carrying amount in the financial statements due mainly to the short maturity of such instruments. Based on borrowing rates currently available to deCODE for loans and capital lease obligations with similar terms, the carrying value of its debt obligations approximates fair value. Cross-currency swaps entered into as economic hedges against foreign exchange rate fluctuations on deCODE's Icelandic krona denominated debt and included in other long-term assets are recorded at their estimated fair value.

*Cash Equivalents*

deCODE considers all highly liquid investments with a maturity of ninety days or less at the date of purchase to be cash equivalents.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

*Materials & Supplies*

Materials and supplies are valued at the lower of cost (first-in, first-out method) or market.

*Property and Equipment*

Property and equipment are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets of generally fifty years for buildings, three to four years for laboratory equipment, five years for furniture and fixtures, and three to five years for other equipment. Maintenance and repairs are expensed as incurred, while major betterments are capitalized. When assets are retired or otherwise disposed of, the assets and related accumulated depreciation or amortization are eliminated from the accounts and any resulting gain or loss is reflected in the statement of operations.

*Impairment of Long-Lived Assets Other than Goodwill*

deCODE reviews long-lived assets for potential impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets held for use is measured by comparing the carrying amount of an asset to the undiscounted estimated future cash flows expected to be generated by the asset. In estimating expected future cash flows for determining whether an asset is impaired, assets are grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. If any such assets are considered to be impaired, the impairment to be recognized is the amount by which the carrying amount of the assets exceeds its fair value.

Long-lived assets located in the United States and Iceland were \$36,089 and \$75,320, respectively, at December 31, 2002. All long-lived assets were located in Iceland in 2001 and 2000.

*Capital Leases*

Assets acquired under capital lease agreements are recorded at the present value of the future minimum rental payments using interest rates appropriate at the inception of the lease. Property and equipment subject to capital lease agreements are amortized over the shorter of the life of the lease or the estimated useful life of the asset unless the lease transfers ownership or contains a bargain purchase option, in which case the leased asset is amortized over the estimated useful life of such asset.

*Finance Costs Related to Long-Term Debt*

Costs associated with obtaining long-term debt are deferred and classified as other long-term assets and amortized as interest expense over the term of the debt. Deferred financing costs are included in other long-term assets and total \$1,016 and \$275 at December 31, 2002 and 2001, respectively.

*Derivative Financial Instruments*

Statement of Financial Accounting Standards No. 133 "Accounting for Derivative Instruments and Hedging Activities" (SFAS 133) as amended by SFAS 137 and SFAS 138 and as interpreted by the Derivatives Implementation Group, was adopted by deCODE effective as of January 1, 2001. SFAS 133 established accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts (collectively referred to as derivatives) and for hedging activities. SFAS 133 requires that an entity recognize all derivatives as either assets or liabilities in the consolidated balance sheet and measure those instruments at fair value. SFAS 133 prescribes requirements for designation and documentation of hedging relationships and ongoing assessments of effectiveness in order to qualify for hedge accounting.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

deCODE evaluates contracts for embedded derivatives and considers whether any embedded derivatives have to be bifurcated, or separated, from the host contracts in accordance with SFAS 133 requirements. Embedded derivatives may have terms that are not clearly and closely related to the terms of the host contract in which they are included. If embedded derivatives exist and are not clearly and closely related to the host contract, they are accounted for separately from the host contract as derivatives, with changes in their fair value recorded in current earnings.

deCODE did not hold any derivative instruments or contracts that contained embedded derivatives as of January 1, 2001, the date of adoption of SFAS 133. Further, deCODE did not designate any derivative instruments as being part of a qualified hedging relationship under SFAS 133 during 2002 or 2001.

*Revenue*

Revenues from research and development collaboration agreements are recorded and recognized in accordance with the applicable performance requirements and terms of the respective contracts, generally either (i) as contract research costs are incurred, usually ratably over the period of effort, (ii) according to the percentage of completion method of contract accounting based on the ratio of contract research costs incurred to expected total costs, or (iii) upon the achievement of substantive milestones. Funding payments are not refundable in the event that the related efforts are not successful. Non-refundable, up-front payments are deferred and recognized on a straight-line basis over the contract term. Contracted chemistry services revenue from negotiated rate contracts are recognized on a per diem basis as services are rendered or on the percentage of completion method based on the ratio of costs incurred to expected total costs for fixed fee contracts based upon the terms of the underlying contract. Any losses on contracts are provided for when they are determinable. Included in revenue are billings to customers for the cost of materials purchased by deCODE.

Prior to January 1, 2002, deCODE recorded all milestone payments received when acknowledgement of having achieved applicable performance requirements was received from the collaborator and recognized milestone payments as revenue on a retrospective basis over the contractual term, effectively deferring a portion of the payment to future periods. deCODE believes the milestone payment method to be a preferable method in recognizing revenue for milestone payments made under particular contracts in that it more closely relates to the underlying activity that results in the revenue-generating milestone event under such contracts. Effective January 1, 2002, deCODE changed its method of recognizing milestone revenue to the milestone payment method for contracts where (i) the milestone event is substantive, (ii) there is substantial effort involved in achieving the milestone, (iii) the milestone payment amount is commensurate with the magnitude of the related achievement, and (iv) the associated follow-on revenue streams bear a reasonable relationship to one another. Revenue under the milestone payment method is recorded and recognized when acknowledgement of having achieved applicable performance requirements is received from the collaborator. As before, milestone payments without the above characteristics are recognized on a retrospective basis over the contractual term of the underlying agreement.

The cumulative effect of the change in accounting principle on prior years results of \$(333) is included in income in the year-ended December 31, 2002. Had the retrospective basis of milestone revenue recognition been continued for the year-ended December 31, 2002, revenue, net loss and basic and diluted net loss per share would have been \$40,873, \$(131,861) and \$(2.69), respectively.

In general, prerequisites for billings are established by contractual terms including predetermined payment schedules, the achievement of contract milestones, or submission of appropriate billing detail. Revenue recorded represents amounts billed in accordance with contract terms. Unbilled costs and fees arise



deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

when revenue has been recognized but customers have not been billed. The following is a summary of deferred revenue:

	For the Year Ended December 31,		
	2002	2001	2000
	(In thousands)		
Revenue recorded during the year .....	\$ 43,437	\$ 32,991	\$ 23,712
Revenue recognized during the year .....	(41,065)	(26,099)	(21,545)
Deferred revenue recorded on acquisition of MediChem .....	827	0	0
Cumulative effect of change in milestone revenue recognition policy .....	(333)	0	0
	2,866	6,892	2,167
Deferred revenue at beginning of year .....	11,297	4,405	2,238
Deferred revenue at end of year .....	<u>\$ 14,163</u>	<u>\$ 11,297</u>	<u>\$ 4,405</u>

To-date, deCODE's revenues have been largely derived from services provided, including product development service activities. Revenues attributed to the United States and to Iceland were \$14,485 and \$26,580, respectively, for 2002 and were all attributed to Iceland in 2001 and 2000. Roche accounted for 41%, 96% and 96% of consolidated revenue in years ended December 31, 2002, 2001 and 2000, respectively.

In the fourth quarter of 2002, deCODE terminated and entered into a related settlement agreement regarding two agreements with Applied Biosystems Group (ABG) that had been in place since July 2001 (See Selected Quarterly Data). deCODE's accounting policy for the Joint Development and Commercialization Agreement (the Agreement) with ABG to develop genotypic analysis products provides for revenue related to ABG's payment obligation and deCODE's development costs associated with the Agreement to be deferred until the development efforts are completed or the Agreement is terminated, if earlier, as was the case. As a result, deferred revenue and costs of \$6.3 million and \$0.8 million, respectively, were recognized in the fourth quarter of 2002 when the parties reached agreement as to termination. ABG accounted for 15% of the consolidated revenue in the year ended December 31, 2002.

**Patent Costs**

Patent application costs are charged to expense as incurred.

**Stock-Based Compensation**

deCODE follows Statement of Financial Accounting Standards No. 123 (SFAS No. 123), Accounting for Stock-Based Compensation. The provisions of SFAS No. 123 allow companies to either expense the estimated fair value of stock options granted to employees or to follow the intrinsic value method set forth in Accounting Principles Board Opinion No. 25 (APB No. 25), Accounting for Stock Issued to Employees, and disclose the pro forma effects on net loss and net loss per share had the estimated fair value of the options granted to employees been expensed. SFAS No. 123 requires companies to expense the estimated fair value of stock options granted to non-employees. deCODE has elected to follow the intrinsic value method in accounting for its employee stock options and follows the fair value method in accounting for its non-employee stock options.

Had compensation cost for all stock options been determined based on the fair value at the grant date for awards consistent with the provisions of SFAS No. 123, as amended by SFAS No. 148, "Accounting for Stock-Based Compensation — Transition and Disclosure — an amendment of FASB Statement No. 123"

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

("SFAS 148"), deCODE's net loss and basic and diluted net loss per share would have been changed to the pro forma amounts indicated below:

	For the Years Ended December 31,		
	2002	2001	2000
	(In thousands, except per share amounts)		
Net loss attributable to common stockholders — as reported	\$(131,886)	\$(52,447)	\$(38,660)
Add: Stock-based employee compensation expense included in reported net loss .....	3,048	4,598	8,246
Deduct: Total stock-based employee compensation expense determined under fair value method for all awards .....	(7,415)	(6,577)	(5,448)
Net loss attributable to common stockholders — proforma ..	<u>\$(136,253)</u>	<u>\$(54,426)</u>	<u>\$(35,862)</u>
Basic and diluted net loss per share as reported — as reported .....	2.68	1.26	1.81
Basic and diluted net loss per share — proforma .....	2.77	1.31	1.68

Pro forma net loss and net loss per share for the year ended December 31, 2000 is less than net loss and net loss per share as reported as a result of deCODE's employee stock options initially being accounted for as variable awards under APB No. 25. The variable award accounting combined with the growth in the estimated fair value of deCODE's common stock during this year resulted in significant stock-based compensation expense being recognized in the statements of operations under APB No. 25. Recent stock option awards are accounted for as fixed awards under APB No. 25 with little or no compensatory element.

The effects of applying the provisions of SFAS No. 123 on net loss and net loss per share as stated above is not necessarily representative of the effects on reported income or loss for future years due to, among other things, the vesting period of the stock options and the fair value of additional stock options that may be granted in future years.

*Foreign Currency Translation*

deCODE's functional currency is the U.S. dollar. Islensk erfðagreining also consolidates its subsidiaries, several of which use the local currency, the Icelandic krona, as the functional currency. For these entities, the assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Income and expense items are translated at the average exchange rates prevailing during the period. Gains and losses from translation are included in accumulated other comprehensive income. For certain consolidated entities the books and records are not maintained in its functional currency. For these entities, translation gains and losses recorded upon remeasurement are included in the statement of operations.

Foreign currency transaction gains and losses are reported according to the exchange rates prevailing on the transaction date and are included in the consolidated statements of operations classified as other non-operating income and expense. Net transaction and translation gains (losses) were \$(731), \$(1,264) and \$1,489 in 2002, 2001 and 2000, respectively.

*Income Taxes*

deCODE accounts for income taxes using the liability method, which requires the recognition of deferred tax assets or liabilities for the temporary differences between the financial reporting and tax bases of deCODE's assets and liabilities and for tax loss carryforwards at enacted statutory tax rates in effect for the years in which the differences are expected to reverse. In addition, valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

*Computation of Net Loss Per Common Share*

Basic net loss per share is computed using net loss available to common stockholders and the weighted-average number of common shares outstanding. The weighted-average number of common shares outstanding during the period is the number of shares determined by relating the portion of time within a reporting period that common shares have been outstanding to the total time in that period. Net loss available to common stockholders consists of the following:

	For the Year Ended December 31,		
	2002	2001	2000
	(In thousands)		
Net loss .....	\$131,886	\$52,447	\$31,119
Accrued dividends on Series A, Series B and Series C preferred stock .....	0	0	5,230
Amortized discount on Series A and Series C preferred stock ..	0	0	2,311
Accrued dividends and amortized discount on preferred stock ..	0	0	7,541
Net loss available to common stockholders .....	<u>\$131,886</u>	<u>\$52,447</u>	<u>\$38,660</u>

Diluted net loss per share is computed using the weighted-average number of common shares outstanding during the period, plus the dilutive effect of potential common shares. Diluted net loss per share does not differ from basic net loss per share in all periods presented as potential common shares are antidilutive for all such periods and are, therefore, excluded from the calculation. Potential common shares excluded from the calculation of diluted net loss per share as their inclusion would have been antidilutive were:

	For the Year Ended December 31,		
	2002	2001	2000
	(Shares)	(Shares)	(Shares)
Warrants to purchase shares of common stock .....	1,851,300	1,067,500	1,167,500
Options to purchase shares of common stock .....	2,281,119	1,918,333	821,000
Restricted shares with an associated outstanding non-recourse promissory note .....	2,467,196	3,060,289	3,889,190

*Comprehensive Income*

Comprehensive income generally represents all changes in stockholders' equity except those resulting from investments or contributions by stockholders. Amounts reported in other comprehensive income include foreign currency translation adjustments.

*Recent Accounting Pronouncements*

In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations". SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. It requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the long-lived asset. deCODE is required to adopt SFAS No. 143 for fiscal year 2003 and does not believe its adoption will have a significant impact on its financial position or results of operations.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections." SFAS No. 145 rescinds FASB Statement No. 4 (FAS 4), "Reporting Gains and Losses from Extinguishment of Debt", the amendment to

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

FAS 4, FASB Statement No. 64 (FAS 64), "Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements", and FASB Statement No. 44, "Accounting for Intangible Assets of Motor Carriers". In addition, SFAS No. 145 amends paragraph 14(a) of FASB Statement No. 13, Accounting for Leases, to eliminate an inconsistency between the accounting for sale-leaseback transactions and certain lease modifications that have economic effects that are similar to sale-leaseback transactions and makes several other technical corrections to existing pronouncements. deCODE is required to adopt FAS 145 for fiscal year 2003 and does not believe its adoption will have a significant impact on its financial position or results of operations.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" ("SFAS 146"). This statement addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies EITF Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)" ("EITF 94-3"). SFAS 146 requires that a liability for a cost associated with an exit cost liability to be recognized at the date of an entity's commitment to an exit plan. SFAS 146 also requires that liabilities recorded in connection with exit plans be initially measured at fair value. deCODE is required to adopt SFAS No. 146 for exit or disposal activities that are initiated from fiscal year 2003 and does not believe its adoption will have a significant impact on its financial position or results of operations.

In December 2002, the FASB SFAS No. 148 "Accounting for Stock-Based Compensation — Transition and Disclosure" (FAS 148) amending FASB SFAS No. 123 "Accounting for Stock-Based Compensation". FAS 148 provides two additional alternative transition methods for recognizing an entity's voluntary decision to change its method of accounting for stock-based employee compensation to the fair-value method. In addition, FAS 148 amends the disclosure requirements of FAS 123 so that entities will have to (1) make more-prominent disclosures regarding the pro forma effects of using the fair-value method of accounting for stock-based compensation, (2) present those disclosures in a more accessible format in the footnotes to the annual financial statements, and (3) include those disclosures in interim financial statements. FAS 148's transition guidance and provisions for annual disclosures are effective for our fiscal year-ended December 31, 2002. The provisions for interim-period disclosures are effective for financial reports that contain financial statements for interim periods beginning after January 1, 2003.

In November 2002, the FASB issued Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" (FIN 45). FIN 45 elaborates on the disclosures deCODE must make about obligations under certain guarantees that deCODE may issue. FIN 45 also requires deCODE to recognize, at the inception of a guarantee, a liability for the fair value of the obligations undertaken in issuing the guarantee. The initial recognition and initial measurement provisions are to be applied only to guarantees issued or modified after December 31, 2002. deCODE has adopted the disclosure provisions as required by FIN 45 and are still evaluating the potential impact of FIN 45 on its financial position and results of operations.

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 must be applied for the first interim or annual period beginning after June 15, 2003. deCODE does not expect FIN 46 to have a material effect on its consolidated financial statements.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21 ("EITF 00-21"), "Revenue Arrangements with Multiple Deliverables." EITF 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

and/or rights to use assets. The provisions of EITF 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. deCODE is still evaluating the potential impact of EITF 00-21 on its financial position and results of operations.

*Receivables*

Receivables consist of the following:

	December 31,	
	2002	2001
	(In thousands)	
Receivables .....	\$4,987	\$9,145
Receivables, related party .....	102	380
Unbilled costs and fees .....	328	0
Total .....	<u>\$5,417</u>	<u>\$9,525</u>

Roche accounted for 43% and 34% of consolidated receivables as of December 31, 2002 and 2001, respectively, and ABG accounted for 17% of consolidated receivables as of December 31, 2001.

*Other Current Assets*

Other current assets consist of the following:

	December 31,	
	2002	2001
	(In thousands)	
Materials and supplies .....	\$4,867	\$6,556
Value added taxes .....	1,796	1,448
Other current assets .....	<u>2,774</u>	<u>1,744</u>
Total .....	<u>\$9,437</u>	<u>\$9,748</u>

*Investments and Other*

**eMR hf.**

deCODE's investment in the common shares of eMR (32.5%) is accounted for under the equity method and is included in other long-term assets, amounting to nil and \$458 at December 31, 2002 and 2001, respectively. Equity in net loss of affiliate in the years ended December 31, 2002, 2001 and 2000 included in other non-operating expense is comprised of deCODE's share of the loss of eMR from March 2000 and amortization of the difference between deCODE's cost and the underlying equity in the net assets of eMR at acquisition.

**Prokaria ehf.**

Prokaria ehf. (Prokaria), a consolidated affiliate for a time, underwent a recapitalization during 2000 resulting in its deconsolidation from deCODE and resulting in a gain of \$787. Such gain is included in other non-operating income and expense in the year ended December 31, 2000. The cash flows and results of Prokaria are included in the consolidated financial statements through September 2000, revenues and net loss for the period being \$32 and \$699, respectively. Two of deCODE's executive officers own an aggregate 37.5% of the share capital and are board members of Prokaria.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Subsequent to Prokaria's recapitalization, deCODE and Prokaria entered into a collaboration and research licensing agreement, the terms of which include:

- Prokaria settled non-interest bearing debts owed deCODE amounting to \$541.
- deCODE sold certain intellectual property rights to certain research, including a patent application, to Prokaria in exchange for: \$509 cash; royalties on revenue Prokaria may receive from the rights related to the patent application; and a license for the use of the patent application rights in deCODE's own operations for the duration of the patent. The payment of \$509 has been recognized and is included in revenue in the year ended December 31, 2000.
- deCODE agreed to provide certain sequencing and advisory services in exchange for appropriate fees. deCODE recognized \$102, \$322 and \$32 in revenue in respect of such sequencing services provided during 2002, 2001 and the period October to December 2000, respectfully.
- Prokaria agreed to reimburse deCODE in respect of certain legal costs incurred by deCODE on Prokaria's behalf.

*Property and Equipment*

Property and equipment consist of the following:

	December 31,	
	2002	2001
	(In thousands)	
Land .....	\$ 2,303	\$ 0
Building construction-in-progress .....	0	27,264
Buildings .....	50,479	10,763
Laboratory equipment .....	41,238	29,706
Furniture and fixtures .....	5,503	2,813
Other equipment .....	4,731	1,004
	104,254	71,550
Less: accumulated depreciation and amortization .....	(20,755)	(10,342)
Total .....	<u>\$ 83,499</u>	<u>\$ 61,208</u>

The total depreciation and amortization expense of property and equipment for the years ended December 31, 2002, 2001 and 2000 was \$12,112, \$8,870 and \$4,724, respectively.

In January 1998, deCODE purchased the building then housing its research operations and corporate headquarters for total consideration amounting to \$2,376, comprised of cash and 74,670 shares of Series B preferred stock. In June 1998, deCODE sold the building for \$2,404 of cash proceeds and leased it back from the counter-party (an Icelandic bank). As ownership of the property was to transfer to deCODE at the end of the lease without any further payment, the transaction was recorded as a financing and no immediate gain was recognized. (See Impairment, Employee Termination Benefits and Other Charges)

During 2000, deCODE paid \$1,423 to the City of Reykjavik and was granted permission to construct a building of approximately 15,000 square meters in the University District which now house the operations of deCODE. deCODE began excavation on the site during October 2000 and, in January 2001, engaged a contractor for the construction of the building itself. The building was placed into service during January 2002 at which time depreciation of the capitalized costs commenced.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In September 2000, deCODE acquired fifty new gene sequencing machines in exchange for \$13,150 and twenty-four of its used gene sequencing machines. This laboratory equipment was placed into service in September and October 2000 and depreciation on the equipment commenced at that time. The \$13,150 is included in accounts payable and accrued liabilities at December 31, 2000. Payment was made in February 2001 and included in investing cash flows for the purchase of property and equipment during the year ended December 31, 2001.

In light of current conditions and the pace of technological change, effective from April 1, 2001 deCODE changed the estimated useful life of sequencing instruments for purposes of depreciation from 5 years to 4 years. This change in estimate had the effect of increasing depreciation expense and basic and diluted net loss per share by \$1,400 and \$0.03 per share, respectively, in the year ended December 31, 2001.

In December 2001, deCODE sold certain laboratory equipment for \$12,000 of cash proceeds and leased the equipment back from the counter-party (an Icelandic leasing company) for a three-year term. As ownership of the equipment will be transferred to deCODE at the end of the lease without any further significant payment, the transaction has been recorded as a financing and no immediate gain was recognized. In connection with this lease, deCODE must maintain an amount equal to 75% of the remaining lease payments on deposit with an Icelandic bank as a compensating balance totaling \$6,144 at December 31, 2002.

In addition to the building and equipment pursuant to the above sale-and-leaseback transactions, property and equipment also includes amounts for certain fixed assets financed under other capital lease obligations. Total cost and accumulated amortization relating to all of deCODE's property and equipment subject to capital lease obligations was \$12,415 and \$4,934, respectively, as of December 31, 2002 and \$16,488 and \$1,521, respectively, as of December 31, 2001.

deCODE's capital lease obligations are collateralized by the assets to which the obligations relate. deCODE has an option to purchase all of the leased property and equipment for 0.2-3% of the original lease amount at lease end.

*Acquisitions*

*Cyclops ehf.*

In November 2000, deCODE acquired the outstanding shares of Cyclops ehf. (Cyclops), an Icelandic company performing research involving the solubility and absorption of drugs, in exchange for 107,910 shares of deCODE's common stock. In addition, deCODE issued 30,000 shares of its common stock to the selling shareholders of Cyclops in connection with the continuing employment by the two former owners of Cyclops and that are subject to repurchase by deCODE. deCODE also agreed that the same two former owners of Cyclops would receive a portion of any net royalties deCODE may earn from certain ongoing projects of Cyclops. The consolidated financial statements include the cash flows and results of Cyclops from the date of acquisition.

The acquisition was accounted for using the purchase method, whereby the total purchase price (\$2,395) has been allocated to Cyclops' assets and liabilities based on their estimated fair values on the date of acquisition. The amounts acquired included the estimated fair value of patents that are being amortized using the straight-line method over three years. Other long-term assets include the recorded amount of patents less accumulated amortization on such, together amounting to \$390 and \$1,200 as of December 31, 2002 and 2001, respectively.

In addition, compensation in respect of the 30,000 shares of deCODE common stock issued to the selling shareholder of Cyclops (\$666) is not part of the purchase price but was recorded as deferred compensation, a component of stockholders' equity, and is being recognized as expense over the four year vesting period from the date of the acquisition.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Encode ehf.

In November 2000, deCODE acquired the outstanding shares of Islenskar lyfjarannsoknir ehf. (Encode), an Icelandic research company serving the pharmaceutical industry. The acquisition was accounted for using the purchase method, whereby the total purchase price has been allocated to Encode's assets and liabilities based on their estimated fair values on the date of acquisition. The consolidated financial statements include the cash flows and results of Encode from the date of acquisition.

Digitalis ehf.

In January 2001, deCODE issued 20,000 shares of its common stock to several persons, including four of its employees, in consideration for all the outstanding capital stock of Digitalis ehf. (Digitalis), an Icelandic software company. The acquisition was accounted for using the purchase method, whereby the total purchase price (\$210) has been allocated to Digitalis' assets and liabilities based on estimated fair values on the date of acquisition. The excess of purchase price over the fair value of the net tangible assets acquired has been allocated to intangibles that are being amortized using the straight-line method over two years. The consolidated financial statements include the cash flows and results of Digitalis from the date of acquisition.

MediChem Life Sciences, Inc.

Under the terms of the merger agreement, MediChem shareholders received 0.3099 shares of newly issued deCODE common stock in exchange for each MediChem share of common stock, or 8,362,893 shares of deCODE common stock. In addition, options to purchase shares of MediChem common stock that vested immediately upon consummation of the merger have been assumed by deCODE, resulting in the issuance of 577,917 options to purchase deCODE common stock. In accordance with the terms of the merger agreement, in July 2002 deCODE also granted a further 136,352 deCODE stock options to certain employees of MediChem under the 1996 Equity Incentive Plan.

The total consideration for the acquisition was \$85,845, which consists of deCODE common stock issued in exchange for outstanding MediChem common stock (\$79,699), MediChem employee stock options assumed (\$2,297) and deCODE transaction costs (\$3,849). deCODE's common stock issued in the exchange has been valued using an average price for the period from three days before to three days after the date the proposed merger was announced. The fair value of options to be assumed is estimated using the Black-Scholes method. The terms of MediChem's outstanding stock options provided that the options fully vested upon a change of control; that is, there were no unvested options upon consummation of this merger. deCODE's direct transaction costs consist primarily of financial advisory, legal and accounting fees.

Under the purchase method of accounting for business combinations as defined by Statement of Financial Accounting Standard No. 141, "Business Combinations", deCODE has allocated the purchase price to the tangible and identifiable intangible assets acquired and liabilities assumed on the basis of their estimated fair values on the acquisition date. Based upon independent valuations of the tangible and intangible assets acquired, deCODE has allocated the total cost of the acquisition to the net assets of MediChem as follows:

	(In thousands)
Net tangible assets acquired .....	\$16,962
In-process research and development .....	480
Identifiable intangible assets .....	6,140
Goodwill .....	62,263
	<u>\$85,845</u>

Net tangible assets acquired include net working capital of \$2,259, property and equipment of \$28,908 and debt of \$14,014.



deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The in-process research and development has been charged to operations as a research and development expense in the year-ended December 31, 2002. Goodwill will not be amortized but is subject to annual impairment testing. Goodwill is also not tax-deductible. Identified intangible assets consist of the following as of December 31, 2002:

Developed technology, 5 year life .....	\$4,560
Patents, 5-7 year life .....	380
Royalty-free licenses, 10 year life .....	230
Standard operating procedures, 5 year life .....	320
	<u>5,490</u>
Less: accumulated amortization .....	(829)
Total .....	<u>\$4,661</u>

deCODE's statements of operations include the results of MediChem from March 18, 2002, the date of acquisition. The following unaudited pro forma financial information presents the consolidated results of deCODE as if the acquisition of MediChem occurred at the beginning of 2001. Nonrecurring charges, such as the acquired in-process research and development charge is not reflected in the following pro forma financial information but MediChem's restructuring and impairment charges totaling \$45,535 in 2001 are included. This pro forma information is not intended to be indicative of future operating results.

	For the Year Ended December 31,	
	2002	2001
	(In thousands, except per share amounts)	
Total revenues .....	\$ 45,153	\$ 46,750
Net loss .....	(136,318)	(102,995)
Basic and diluted net loss per share .....	(2.68)	(2.06)

*Impairment, Employee Termination Benefits and Other Charges*

In September of 2002, deCODE implemented a cost reduction program and reduced total worldwide headcount, focusing in particular on utilizing ongoing process automation and increased productivity in the core genetics operations in Reykjavik. Stemming from this initiative and together with management's consideration of significant and pervasive declines in the market environment for pharmaceutical and biotech industries, deCODE determined that impairment tests of the carrying value of its goodwill and other long-lived assets, including the long-lived assets acquired through the MediChem acquisition, should be performed. deCODE recorded the following impairment, employee termination benefits and other charges during the year-ended December 31, 2002:

	(In thousands)
Employee termination benefits .....	\$ 2,158
Impairment of goodwill .....	53,400
Impairment of property and intangible asset .....	2,715
Write-down of assets held for sale .....	2,706
Write-down of equipment .....	2,053
Obsolete and excess materials and supplies write-down .....	<u>1,758</u>
	<u>\$64,790</u>

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Charges related to termination benefits are for 132 employees. Of the \$2,158 provided, \$1,284 was paid in 2002 and \$874 remains accrued and unpaid as of December 31, 2002. These remaining benefits are expected to be settled in cash over the first half of 2003.

For purposes of the goodwill impairment tests, deCODE identified its reporting units, identified the assets and liabilities of the reporting units and performed impairment tests on the net goodwill associated with them. Goodwill that resulted from the acquisition of MediChem was assigned to the reporting units based upon expectations of synergies to be gained from the integration of the pharmaceutical and biostructures groups with deCODE. Goodwill impairment is deemed to exist if the net book value of a reporting unit exceeds its estimated fair value. To identify potential impairment, deCODE, based upon independent valuations, compares fair value of a reporting unit with its carrying amount, including goodwill. For this purpose, deCODE estimates fair value of a reporting unit using analyses of comparable companies and recent comparable transactions. In measuring the amount of impairment loss, deCODE, based upon independent valuations, compares the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill, estimating the fair value of an impaired reporting unit using discounted cash flow methodologies. The goodwill impairment charge is associated solely with goodwill resulting from the acquisition of MediChem and results largely from significant and pervasive declines in the market environment for the pharmaceutical and biotech industries impacting, among other things, market valuations of companies operating in those industries.

In September 2002, deCODE committed to a plan to sell its Woodridge Discovery Center and an agent was engaged and has initiated an active marketing program to locate a buyer/investor in a sale and leaseback transaction. Efforts to enter into a sale and leaseback transaction continue with a view to having a re-financing being completed by mid-2003. Taking into account the estimated selling price of the building, deCODE recorded an impairment charge in the year-ended December 31, 2002 amounting to \$2,065. In addition, certain intangible assets amounting to \$650 were determined to be impaired utilizing a discounted cashflow methodology to estimate fair value.

In September 2002, deCODE committed to a plan to sell its former headquarters facility that had been vacated in connection with the move to its new headquarters facility in Reykjavik's University district earlier in the year. In October 2002, an agent for the sale was engaged and an active marketing program to locate a buyer was initiated. In November 2002, terms of sale were agreed and executed with a buyer in the amount of \$2,853. Taking into account the selling price of the building less costs to sell, deCODE wrote-down the property in September 2002 and recorded a loss amounting to \$2,706.

In September 2002, deCODE wrote-down the value of certain laboratory equipment no longer in use, amounting to \$2,053.

Ongoing process automation and increased productivity in the core genetics operations in Reykjavik and changes in some of deCODE's target research programs have affected deCODE's planned volume and timing of usage of its materials and supplies. In this connection, management recorded an additional provision for excess and obsolete material and supplies during September 2002.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

*Accounts Payable and Accrued Expenses*

Accounts payable and accrued expenses consist of the following:

	December 31,	
	2002	2001
	(In thousands)	
Accounts payable .....	\$ 4,865	\$11,809
Salaries and other employee benefits .....	4,257	4,285
Database license fee .....	2,600	1,357
Building construction .....	0	2,415
Other current liabilities .....	3,756	1,299
Total .....	<u>\$15,478</u>	<u>\$21,165</u>

*Debt*

In December 2001, deCODE established a \$27,500 bridge loan with an Icelandic financial institution to finance the construction of its new headquarters facility. The borrowings under the bridge loan were repaid in January and March 2002 with the proceeds from deCODE's Tier A \$13,500 bond offering, Tier C \$7,300 offering of privately placed bonds and Tier D \$6,700 bank loan. In December 2001, deCODE also entered into a \$4,000 bank loan (Tier B) for the construction of its new headquarters facility. The Tier B bank loan is denominated in U.S. dollars and the principal amount is payable quarterly beginning March 2002. The Tier B bank loan bears annual interest of three-month LIBOR plus 3.0% (4.42% at December 31, 2002) that is payable quarterly beginning March 2002. The lender may demand prepayment of the Tier B bank loan in certain circumstances.

The Tier A bonds are denominated in Icelandic krona and are linked to the Icelandic Consumer Price Index. The principal amount is payable annually beginning December 2002. The Tier A bonds bear annual interest of 8.5% that is payable annually beginning December 2002. The Tier C bonds are denominated in Icelandic krona and are linked to the Icelandic Consumer Price Index. The principal amount is payable in March 2007. The Tier C bonds bear annual interest of 12.0% that is payable beginning March 2003. The principal amount is payable in March 2007. The Tier D bank loan bears annual interest of three-month LIBOR plus 6.0% (7.42% at December 31, 2002) that is payable quarterly beginning June 2002. Tier C bonds may be prepaid at each interest payment date and the Tier D bank loan may be prepaid on the anniversary date of the loan starting December 2003.

The Tier A bonds, Tier B bank loan, Tier C bonds and Tier D bank loan are collateralized by deCODE's headquarters facility.

In connection with the Tier A and Tier C bonds deCODE entered into two cross-currency swaps as economic hedges against foreign exchange rate fluctuations that may occur on the Tier A and Tier C bonds. These outstanding contracts bear annual interest of three-month LIBOR plus 2.85% and twelve-month LIBOR plus 6%, respectively. (See "Derivative Financial Instruments")

In connection with the Tier C bonds and the Tier D bank loan, deCODE issued a warrant giving the holder the right to purchase a total of 933,800 shares of deCODE common stock at \$15.00 per share, as adjusted. The warrants expire in March 2007 and convert into shares of deCODE common stock automatically in the event the market value of a share of deCODE common stock should exceed \$24.00 for thirty consecutive days of trading. A portion of the proceeds from the Tier C bonds and the Tier D bank loan has been allocated to the warrant (\$696) and recorded to additional paid-in capital. The resulting discount on the Tier C bonds and the Tier D bank loan is being amortized to interest expense through March 2007.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In April 2002, deCODE repaid the existing loan that had been assumed in the acquisition of MediChem (\$11,880). In June 2002, deCODE executed a mortgage for \$11,800 with a financial institution for its Woodridge, IL discovery center. The debt carries an interest rate of three-month LIBOR + 1.75% (3.57% at December 31, 2002), payable in monthly installments of \$49 for five years and a final payment of \$8,800 due in 2007. The mortgage is collateralized by restricted cash totaling \$6,000.

In November 2002, deCODE established a \$2,200 mortgage loan with an Icelandic financial institution. The bank loan is denominated in U.S. dollars and bears interest at a rate of 6 month LIBOR plus 1.95% (3.33% at December 31, 2002) that is payable in semi-annual installments of \$73 beginning June 2003 with a final payment of \$1,835 due in 2005.

On April 5, 2001, MediChem Life Sciences, Inc., entered into a Master Security Agreement with General Electric Capital Corporation (G.E. Capital). This credit facility provides for revolving credit loans in the aggregate amount of \$4,000. During 2002, deCODE entered into two promissory notes associated with this credit facility. These notes were for \$266 and \$193 and bear interest at fixed rates of 8.57% and 8.52%, respectively. The terms of the notes are four years and are payable in equal monthly payments based on a 48-month amortization plus interest. The notes are collateralized by the equipment purchased.

In the ordinary course of business, deCODE is contingently liable for performance under a standby letters of credit totaling \$1,286 as of December 31, 2002.

Debt consists of the following:

	December 31,	
	2002	2001
	(In thousands)	
Bridge loan; interest at short-term LIBOR plus 0.5% .....	\$ 0	\$27,500
Mortgage bonds; fixed interest of 8.5% - 12.0% .....	24,316	0
Mortgage loans; interest at LIBOR plus 1.75% - 6.0% .....	23,186	4,001
Equipment notes; fixed interest of 8.52% - 9.57% .....	1,702	0
Total .....	<u>\$49,204</u>	<u>\$31,501</u>

As of December 31, 2002 principal payments on long-term debt are as follows:

2003 .....	\$ 4,243
2004 .....	4,289
2005 .....	5,844
2006 .....	3,719
2007 .....	27,996
2008 and thereafter .....	3,113
	<u>\$49,204</u>

*Derivative Financial Instruments*

During the normal course of business, deCODE is exposed to foreign currency risk and interest rate risk. These risks can create volatility in earnings and cash flows from period to period. deCODE's objective is to reduce volatility of earnings and cash flows associated with market risks. Derivative instruments held by the Company are used for hedging and non-speculative purposes. As of December 31, 2002, deCODE had entered into two cross-currency swaps for purposes of managing certain of these risks.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

deCODE seeks to maintain a desired level of floating-rate debt with respect to its overall debt portfolio denominated in U.S. Dollars. To this end, deCODE uses interest rate and cross-currency swaps to manage interest rate and foreign currency risk arising from long-term debt obligations denominated in Icelandic krona. These interest rate and cross-currency swaps with a combined notional amount of 2,100 million Icelandic krona are designated as economic hedges of fixed rate foreign currency debt (Tier A and Tier C bonds), but do not qualify for hedge accounting under SFAS 133. The estimated fair value of these instruments is included in other long-term liabilities (\$223) as of December 31, 2001 and in other long-term assets (\$6,361) as of December 31, 2002. The resulting unrealized loss for the year-ended December 31, 2001 (\$223) and unrealized gain for the year-ended December 31, 2002 (\$1,116) are included in other non-operating income and (expense), net in the Consolidated Statements of Operations.

The fair value of derivative instruments is sensitive to movements in the underlying market rates and variables. deCODE monitors the fair value of derivative instruments on a periodic basis. Fair values are estimated for each derivative using common market valuation methods with reference to available market data as of the balance sheet date.

*Lease Commitments*

deCODE leases certain property, laboratory equipment and other assets under obligations that expire at varying dates through 2008. At December 31, 2002, future minimum lease payments under all non-cancelable leases with terms in excess of one-year are as follows:

	<u>Operating</u>	<u>Capital</u>
	(In thousands)	
2003 .....	\$1,478	\$ 4,647
2004 .....	1,120	4,622
2005 .....	688	342
2006 .....	256	143
2007 .....	0	40
2008 .....	0	30
Total minimum lease payments .....	<u>\$3,542</u>	9,824
Less amount representing interest .....		(505)
Present value of future minimum lease payments .....		9,319
Less: current portion .....		(4,311)
Long-term portion .....		<u>\$ 5,008</u>

Rental expense for operating leases was \$1,491, \$872 and \$247 in the years ended December 31, 2002, 2001 and 2000, respectively. Included in operating and capital lease commitments are leases on facilities that deCODE has vacated during 2002 as a result of the move to the new headquarters facility. Total remaining minimum lease payments on these facilities are \$1,046 as of December 31, 2002. Management has assessed its alternatives in respect of these leased facilities, including sub-leasing, and has recorded a provision amounting to \$903 in the year ended December 31, 2002 with respect to the remaining commitments. The remaining provision at December 31, 2002 (\$839) is net of sub-lease payments deCODE will receive and is classified together with other current liabilities.

*Guarantees*

In November 2002, the FASB issued FIN No. 45 "Guarantor's Accounting and Disclosure Requirements for Guarantees, including Indirect Guarantees of Indebtedness of Others — an interpretation of FASB Statements

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

No. 5, 57 and 107 and rescission of FIN 34.” deCODE has applied the disclosure provisions of this FIN 45 as of December 31, 2002. The following is a summary of deCODE’s agreements that it has determined are within the scope of FIN 45.

Under its bylaws, deCODE has agreed to indemnify its officers and directors for certain events or occurrences while the officer or director is, or was serving, at its request in such capacity. The term of the indemnification period is for the officer’s or director’s lifetime. deCODE has a separate indemnification agreement with one of its directors that requires it, subject to certain exceptions, to indemnify him to the fullest extent authorized or permitted by its bylaws and the Delaware General Corporation Law. The maximum potential amount of future payments deCODE could be required to make under these indemnification agreements is unlimited; however, deCODE has a directors and officer liability insurance policy that limits its exposure and enables it to recover a portion of any future amounts paid. As a result of its insurance policy coverage, deCODE believes the estimated fair value of these indemnification agreements is minimal. deCODE has no liabilities recorded for these agreements as of December 31, 2002.

When as part of an acquisition deCODE acquires all of the stock or all of the assets and liabilities of a company, it assumes the liability for certain events or occurrences that took place prior to the date of acquisition. The maximum potential amount of future payments it could be required to make for such obligations is undeterminable at this time. deCODE has no liabilities recorded for these liabilities as of December 31, 2002.

deCODE enters into indemnification provisions under (i) its agreements with other companies in its ordinary course of business, typically with business partners, contractors, clinical sites and customers and (ii) its agreements with investors. Under these provisions deCODE generally indemnifies and hold harmless the indemnified party for losses suffered or incurred by the indemnified party as a result of deCODE’s activities or, in some cases, as a result of the indemnified party’s activities under the agreement. These indemnification provisions generally survive termination of the underlying agreement. In addition, in some cases, deCODE has agreed to reimburse employees for certain expenses and to provide salary continuation during short term disability. The maximum potential amount of future payments deCODE could be required to make under these indemnification provisions is unlimited. deCODE has not incurred material costs to defend lawsuits or settle claims related to these indemnification agreements. As a result, the estimated fair value of these agreements is minimal. Accordingly, deCODE has no liabilities recorded for these agreements as of December 31, 2002.

*Settlement Agreement*

On December 31, 1997, deCODE entered into a settlement agreement (the Agreement) with The Beth Israel Deaconess Medical Center (Beth Israel) in respect of deCODE’s past use of the institution’s research facilities. Among other terms, the Agreement provides for the joint ownership of a specific technology associated with the linkage of a segment of DNA to the multiple sclerosis trait that was developed at the research facilities. deCODE has obtained an exclusive license from Beth Israel to develop and commercialize therapeutic and diagnostic products worldwide based on Beth Israel’s interest in patents and know-how relating to the linkage between this particular segment of DNA and multiple sclerosis. The license under the patents will expire upon the expiration of the last patent to expire and thereafter the license to the know-how will be perpetual.

Under the terms of the Agreement, deCODE is obligated to pay license fees and other payments upon the achievement of established milestones leading to the discovery of defined products. deCODE is also required to pay royalties to Beth Israel on certain royalty bearing products which may result from the licensed technology. Such royalties are to be paid for a period up to and potentially exceeding 15 years.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

*Significant Collaborative Parties*

deCODE's principal partners include:

*F. Hoffman-La Roche.* In January 2002, deCODE and Roche entered into a new three year Collaboration and Cross-License Agreement. Under this new alliance, Roche will provide research funding for a minimum of the next two years for deCODE to conduct downstream research in a selection of four diseases, with the goal of using the targets identified to discover and develop new therapeutic compounds and to take these compounds into clinical trials. Also, deCODE may receive development and regulatory approval milestone payments for therapeutic drug compounds developed pursuant to the agreement as well as royalties on Roche's sales of drugs developed under the agreement. Additionally, deCODE may pay Roche royalties should deCODE develop and market drugs for certain common diseases.

*Merck.* In September 2002, deCODE and Merck & Co., Inc. (Merck) entered into an alliance aimed at developing new treatments for obesity. Under the alliance, deCODE and Merck will combine their research efforts in the genetics of obesity to identify, validate and prioritize a series of drug targets to take into development. Under the terms of the three-year agreement, deCODE will receive research funding, technology access, license fees, milestone payments as compounds developed under the alliance advance in the development process, and royalties on successfully marketed alliance drugs.

*F. Hoffman-La Roche.* In June 2001, deCODE entered into a collaboration and cross-license agreement with Roche establishing a five-year alliance to develop and market DNA-based diagnostics for major diseases. Under the terms of this new agreement, deCODE is collaborating with Roche to identify and validate molecular targets that are useful for developing products and services that accurately establish a patient's current diagnosis, predict future risk of disease, predict drug response and determine responses to treatment or the health status of individuals and enable early prevention or treatment of disease. deCODE will also be focusing on developing informatics products and services, which will include software tools and databases. As part of the alliance deCODE has also provided Roche with access to intellectual property, including deCODE's Clinical Genome Miner. Under the agreement deCODE is or will receive payments including research funding, research milestones and royalties on any products which are commercialized. The research term under the agreement is five years.

*IBM.* In January 2003, deCODE announced a three-year strategic alliance with IBM under which deCODE and IBM will jointly market and sell deCODE's Clinical Genome Miner (CGM) Discovery<sup>TM</sup> system running on IBM hardware and software. CGM Discovery<sup>TM</sup> is the same statistically-based application for isolating and analyzing genes and gene variations associated with particular diseases that deCODE has used its gene discovery programs. The alliance aims to take advantage of deCODE's expertise in genetics and IBM's leadership in hardware and software systems to create solutions for what deCODE and IBM believe is a growing market for information-based medicine.

*Wyeth.* In November 2002, deCODE entered into a pharmacogenomic alliance with Wyeth. Under the agreement, deCODE will use its in vitro pharmacogenomics expertise to generate gene expression data for a drug candidate targeted to treatment of certain respiratory diseases.

*Pharmacia.* In December 2001, deCODE formed a pharmacogenomics alliance with Pharmacia Corporation (Pharmacia) to identify the role of genetics in the development of advanced forms of heart disease. Under the amended and restated agreement, deCODE will receive contract fees in exchange for employing its population resources and Clinical Genome Miner discovery system to find genetic markers that can be used to identify patients who are highly predisposed to progressing from an early to an advanced form of heart disease.

*Vertex Pharmaceuticals.* In January 2003 deCODE entered into an agreement with Vertex Pharmaceuticals under which we will gather and analyze pharmacogenomic data as part of clinical trials our subsidiary

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Encode conducts on Vertex developmental compounds. The first project under the agreement is a phase IIa clinical trial for Vertex's VX-148 treatment for psoriasis. Our pharmacogenomics capabilities will enable Vertex to gain an understanding, in conjunction with clinical trial results, of genetic factors affecting the responses of individuals to treatment. This information may be useful in designing subsequent clinical strategies and pharmacogenomic tests. Based upon the results of work under this agreement, we and Vertex may extend our collaboration to the development and commercialization of pharmacogenomic tests.

*Affymetrix Inc.* In July 2001, deCODE entered into a pharmacogenomics collaboration and license agreement with Affymetrix, Inc. Under the terms of the agreement the parties are collaborating in the research and development of gene expression tests and nucleic acid based tests to predict the response of individual patients to various drugs. deCODE is undertaking the initial research activities to be performed with respect to the initial ten drugs to be studied under the collaboration. Affymetrix will supply various chips in connection with the research. The parties will share revenues resulting from the collaboration, including those from licensing and product commercialization.

*Genmab and Medarex.* In June 2001, deCODE entered into a collaboration agreement with Genmab A/S and Medarex, Inc. pursuant to which the parties are collaborating on the research, development, and commercialization of new antibody therapeutic products. Under this five year collaboration, deCODE is utilizing novel targets discovered in its research on the genetics of common diseases along with Genmab's human antibody technology. The collaboration covers a broad range of disease areas including cardiovascular disease, inflammatory disease and cancer. Together with Genmab and Medarex, deCODE will share equally in the development costs and revenues generated from the outlicensing or sales of products developed under the agreement.

*Academic, Hospital and Physician Collaborations.* deCODE has ongoing collaborations with a number of academic, healthcare and research organizations in other countries, including Emory University (Atlanta), Partners HealthCare System (Boston), the University of Pennsylvania (Philadelphia), the University of Aberdeen (Scotland), the National Cancer Institute (Washington, DC), the Karolinska Institute (Stockholm), and the Center for Clinical and Basic Research (Denmark). These collaborations enable deCODE to broaden its knowledge about the genetics discoveries made in Iceland in other patient populations, and provide its partners with access to our tools and expertise in human genetics. In all such collaborations deCODE negotiates to retain intellectual property and product development rights on results obtained using its discoveries and expertise.

*Icelandic Health Sector Database License*

On January 22, 2000, the Ministry of Health and Social Security, or the Ministry, granted deCODE an operating license to create and run the Icelandic Health Sector Database, or the License. The License, which has a term of twelve years, allows deCODE to collect data from medical records of Icelandic healthcare institutions and self-employed healthcare professionals and to transfer such data in encrypted form into a centralized database. As required by the License and concurrently with the issuance of the License, deCODE entered into an agreement with the Ministry whereby deCODE must pay the Icelandic government a fixed annual fee of 70 million Icelandic kronas (approximately \$913 as of March 2003) and an additional annual fee of 6% of its net profit, up to a maximum of 70 million Icelandic kronas per year. At December 31, 2002, \$2,600 in respect of these annual fees has been provided and is included in other accrued expenses. The agreement also provides that deCODE's rights to the Icelandic Health Sector Database will be transferred to the Ministry on the expiration or termination of the license, January 2012.

deCODE's preparation of the Icelandic Health Sector Database is subject to technical requirements imposed by the Icelandic Data Protection Authority, or the Authority, in areas such as data encryption and privacy protection. These requirements are subject to change from time to time and may require greater technical capabilities than deCODE currently has. Compliance with these requirements can be expensive and



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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

time-consuming and may delay the development of the Icelandic Health Sector Database and the deCODE Combined Data Processing system or make such development more expensive than anticipated. In addition, deCODE's compliance is subject to evaluation by the agencies imposing these requirements. deCODE cannot control the time required for this evaluation, and accordingly, the evaluation process may lead to delay in the development of the Icelandic Health Sector Database and the deCODE Combined Data Processing system. As of March 2003, deCODE is awaiting the conclusion of a government-mandated review of the Icelandic Health Sector Database's data encryption and protection protocols.

deCODE is subject to a very extensive indemnity clause in the agreement with the Ministry, pursuant to which it has:

- agreed not to make any claim against the government if the Act or the License are amended as a result of the Act or rules relating to the Icelandic Health Sector Database being found to be inconsistent with the rules of the European Economic Area or other international rules and agreements to which Iceland is or becomes a party;
- agreed that if the Icelandic state by a final judgment is found to be liable or subject to payment to any third party as a result of the passage of legislation on the Icelandic Health Sector Database and/or issuance of the License, deCODE will indemnify it against all damages and costs in connection with the litigation; and
- agreed to compensate any third parties with whom the Icelandic government negotiates a settlement of liability claims arising from the legislation on the Icelandic Health Sector Database and/or the issue of the License, provided that the Icelandic government demonstrates that it was justified in agreeing to make payments pursuant to the settlement.

The License and the agreement under which deCODE received the license also require it to:

- pay the costs incurred by the health institutions (including the costs of medical record software) in connection with the entering of data from medical records before transfer to the Icelandic Health Sector Database;
- financially segregate the operation of the Icelandic Health Sector Database from its other activities by maintaining a separate operating unit, and separate accounts for the Icelandic Health Sector Database;
- pay the costs of the governmental agencies which monitor deCODE's Icelandic Health Sector Database activities;
- indemnify and agree not to sue the Icelandic government for any liability resulting from the passage of the legislation on the Icelandic Health Sector Database and its operation and/or the issuance of the Icelandic Health Sector Database; and
- observe international science ethics rules.

The License prohibits deCODE from, among other things, abusing its position by charging unreasonable fees, refusing business to our competitors or discriminating among customers by imposing discriminatory or other onerous business terms on our customers; or assigning or pledging our rights in the License.

The Icelandic Health Sector Database license will expire in January 2012, unless an extension is granted.

***Litigation***

In January 2000, Thorsteinn Jonsson and Genealogia Islandorum hf., the alleged holders of copyrights to approximately 100 books of genealogical information, commenced an action against us in the District Court of Reykjavik in Iceland. They alleged that deCODE's genealogy database infringes their copyrights and sought damages in the amount of approximately 616 million Icelandic kronas and a declaratory judgment to prevent

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

deCODE from using the allegedly infringing data. Subsequently, deCODE acquired the copyrights at issue in the matter for 10 million Icelandic kronas (approximately \$120). On December 20, 2002, the case was dismissed without prejudice.

In February 2000, Mannvernd, an organization known as the Association of Icelanders for Ethics in Science and Medicine, issued a press release announcing its intention to file lawsuits against the State of Iceland and any other relevant parties, including deCODE, to test the constitutionality of the Act. In its press release, Mannvernd indicated that it hopes to halt the construction and/or operation of the Icelandic Health Sector Database. In April 2001, a lawsuit was filed against the Icelandic Directorate of Public Health but Mannvernd has not commenced litigation against deCODE. The ultimate resolution of this matter cannot yet be determined.

On or about April 20, 2002, an amended class action complaint, captioned *In re deCODE genetics, Inc. Initial Public Offering Securities Litigation* (01 Civ. 11219(SAS)), alleging violations of federal securities laws was filed in the United States District Court for the Southern District of New York on behalf of certain purchasers of deCODE common stock. The complaint names us, two of deCODE's current executive officers (the "Individual Defendants"), and the two lead underwriters (the "Underwriter Defendants") for deCODE's initial public offering in July 2000 (the "IPO") as defendants.

In the amended pleading, the plaintiff alleges violations of Section 11 of the Securities Act of 1933 and violations of Section 10(b) of the Securities Exchange Act of 1934 (and Rule 10b-5 promulgated thereunder) against deCODE, the Individual Defendants and the Underwriter Defendants. In addition, the amended complaint alleges violations of Section 15 of the Securities Act of 1933, and Section 20(a) of the Securities Exchange Act of 1934 against the Individual Defendants. Generally, the amended complaint alleges that the Underwriter Defendants: (i) solicited and received excessive and undisclosed commissions from certain investors in exchange for which the Underwriter Defendants allocated to those investors material portions of the shares of deCODE stock sold in the IPO; (ii) entered into agreements with customers whereby the Underwriter Defendants agreed to allocate shares of our stock sold in the IPO to those customers in exchange for which the customers agreed to purchase additional shares of deCODE stock in the aftermarket at pre-determined prices; and (iii) improperly used their analysts, who purportedly suffered from conflicts of interest, to manipulate the market. The amended complaint further alleges that the prospectus incorporated into the registration statement for the IPO was materially false and misleading in that it failed to disclose these arrangements. The amended complaint also alleges that deCODE and the Individual Defendants had numerous interactions and contacts with the Underwriters from which deCODE and the Individual Defendants either knew of, or recklessly disregarded, the Underwriters' purported wrongful acts. The suit seeks unspecified monetary and rescissory damages and certification of a plaintiff class consisting of all persons who purchased shares of deCODE common stock from July 17, 2000 to December 6, 2000.

deCODE is aware that similar allegations have been made in hundreds of other lawsuits filed (many by some of the same plaintiff law firms) against numerous underwriter defendants and issuer companies (and certain of their current and former officers) in connection with various public offerings conducted in recent years. All of the lawsuits that have been filed in the Southern District of New York have been consolidated for pretrial purposes before Honorable Judge Shira A. Scheindlin. Pursuant to the underwriting agreement executed in connection with deCODE's IPO, deCODE has demanded indemnification from the Underwriter Defendants. The Underwriter Defendants have asserted that deCODE's request for indemnification is premature.

Pursuant to an agreement the Individual Defendants have been dismissed from the case without prejudice. Along with numerous other issuers, deCODE moved to dismiss the complaint for failure to state a claim. On February 19, 2003, Judge Scheindlin granted our motion with respect to the Section 10(b) claims and denied the motion with respect to the Section 11 claims.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

deCODE believes that the allegations against deCODE and deCODE's officers are without merit and deCODE intends to contest them vigorously. Because the litigation is, however, still in the preliminary stage, deCODE cannot predict its outcome and the ultimate effect, if any, on deCODE's financial condition. In addition, it is possible that further lawsuits alleging substantially similar claims will be filed against deCODE and deCODE's officers. If deCODE is required to pay significant monetary damages as a result of such litigation, deCODE's business could be significantly harmed. Even if such suit or suits conclude in deCODE's favor, deCODE may be required to expend significant funds to defend against the allegations. deCODE is unable to estimate the range of possible loss from the litigation and no amounts have been provided for such matters in deCODE's financial statements.

*Preferred Stock*

Prior to deCODE's initial public offering of common stock, deCODE was authorized to issue a total of 32,641,926 shares of preferred stock. Of these shares, 11,041,926 shares, 10,300,000 shares, and 4,583,334 shares had been designated Series A, Series B and Series C, respectively, and 6,716,666 remain undesignated.

In accordance with the terms of the then outstanding preferred stock, shares of Series A, Series B, and Series C preferred stock were converted into 9,624,282, 10,046,132 and 4,066,667 shares of common stock, respectively, effective upon the closing of deCODE's initial public offering in July 2000. Effective concurrently with the initial public offering, all authorized shares of Series A, Series B and Series C preferred stock were retired.

In respect of the remaining undesignated shares of preferred stock, deCODE's Board of Directors is authorized, except as otherwise limited by Delaware law, without further action by the stockholders to:

- issue shares of preferred stock in one or more series;
- fix or alter the dividend rights, dividend rates, conversion rights, voting rights, terms of redemption (including sinking fund provisions), redemption price or prices, and liquidation preferences of any wholly unissued series of preferred stock;
- designate the number of shares constituting, and the designation of, any series of preferred stock; and
- increase or decrease the number of shares of a series subsequent to the issue of shares of that series, but not below the number of shares of that series then outstanding.

*Common Stock*

The total authorized shares of common stock, par value \$0.001, of deCODE is 100,000,000 shares. Holders of shares of common stock are entitled to one vote at all meetings of stockholders for each share held by them. The common stock has no preemptive rights or other rights to subscribe for additional shares, no conversion right and no right of redemption. Subject to the rights and preferences of the holders of any preferred stock, the holders of the common stock are entitled to receive such dividends as, when and if declared by the Board of Directors out of funds legally available for that purpose.

In July 2000, deCODE completed its initial public offering of common stock. A total of 11,040,000 shares were sold by deCODE at a price of \$18.00 per share. The offering resulted in net proceeds to deCODE of approximately \$182,000, net of an underwriting discount of \$13,900 and offering expenses of \$2,900.

Of the 6,015,000 shares of common stock that were issued and paid at the inception of deCODE, 5,789,438 were issued to the founders of deCODE subject to certain vesting provisions (Founder Stock). The unvested shares of Founder Stock were subject to repurchase by deCODE at the original issue price in the event that a founder did not continue in employment, according to individual terms. All remaining Founder Stock is fully vested as of December 31, 2002.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Of the Founder Stock, 3,125,292 shares of common stock are entitled to piggyback registration rights with respect to the registration of such shares under the Securities Act. Should deCODE propose to register any further shares of common stock under the Securities Act either for deCODE's own account or for the account of other security holders, the holders of shares having piggyback rights are entitled to receive notice of the registration and are entitled, with some limitation, to include their shares in the registration.

Forfeited unvested Founder Stock and unvested common stock issued upon early exercise of stock options totaling 70,841 and 26,977 in 2001 and 2000, respectively, were held in treasury and subsequently re-issued during those same years. At December 31, 2002, forfeited unvested common stock issued upon early exercise of stock options totaling 150,635 shares were held in treasury. At December 31, 2002, 89,042 shares of common stock that were issued upon early-exercise of stock options remained unvested.

Notes receivable provided in connection with the purchase of common stock are collateralized only by the shares to which they relate, are payable after a fixed period of generally four years and bear a fixed interest rate of generally six percent per annum. Several of the notes that have become due have been extended a further six years without additional interest. The loan becomes payable upon termination of employment and/or when the shares are sold.

*Warrants*

Upon the closing of deCODE's public offering in July 2000, warrants to purchase 1,075,833 shares of Series A preferred stock and warrants and options to purchase 416,667 shares of Series C preferred stock automatically converted into warrants and options to purchase the same number of shares of common stock. Of these warrants, 325,000 were exercised during the period from the public offering and December 31, 2000, 100,000 were exercised in the year ended December 31, 2001 and 150,000 were exercised in the year ended December 31, 2002. Holders of such warrants and options have the right to require deCODE to file a registration statement under the Securities Act covering the registration of their shares at any time after 180 days from the effective date of an initial registration statement if the holders of 50% of such shares demand registration. Such registration rights are subject to conditions and limitations, including the right of the underwriters of an offering to limit the number of shares of common stock which security holders may include in a registration. Further, deCODE may defer a registration for a period of 90 days if deCODE furnishes to the holders requesting registration a certificate signed by the chairman of the board stating that in the good faith judgment of the Board of Directors it would be seriously detrimental to deCODE and its stockholders for the requested registration to be effected at that time. deCODE is generally required to bear all of the expenses of such registrations, except underwriting discounts and selling commissions. Registration of any of the shares of common stock held by security holders with registration rights would result in such shares becoming freely tradable without restriction under the Securities Act immediately upon effectiveness of such registration.

Warrant activity is summarized as follows:

	For the Years Ended December 31,		
	2002	2001	2000
Outstanding at beginning of year .....	1,067,500	1,167,500	1,492,500
Issued .....	933,800	0	0
Exercised .....	(150,000)	(100,000)	(325,000)
Outstanding at end of year .....	<u>1,851,300</u>	<u>1,067,500</u>	<u>1,167,500</u>

In May 2002, deCODE issued warrants to purchase 933,800 shares of common stock at an exercise price of \$15.00 per share in conjunction with the issuance of the Tier C bonds and Tier D bank loan. Exercise prices on deCODE's remaining outstanding warrants range from \$1.00-\$4.00 per share.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

*Stock Option Plan*

In August 1996, deCODE adopted the deCODE genetics, Inc. 1996 Equity Incentive Plan (the "1996 Plan"). A total of 7,000,000 options are reserved for grants under the terms of the Plan. The Plan provides for grants of stock options to employees, members of the Board of Directors, consultants and other advisors who are not employees. Options granted to date generally vest over a period of four years, generally have a maximum term of 10 years, and may contain early-exercise provisions allowing for company-provided financing of the exercise price. As of December 31, 2002, 531,276 shares were available for grant under the 1996 Plan.

In June 2002, deCODE adopted the deCODE genetics, Inc. 2002 Equity Incentive Plan (the "2002 Plan"). A total of 3,000,000 shares of common stock are reserved for grants under the terms of the 2002 Plan. The 2002 Plan provides for grants of stock options to employees, members of the Board of Directors, and consultants who are not employees. There were no options granted in 2002 under the 2002 Plan. As of December 31, 2002, 3,000,000 shares were available for grant under the 2002 Plan.

Options transactions pursuant to the 1996 Plan are summarized as follows:

	Exercise Price Greater than Grant Date Stock Fair Value		Exercise Price Equals Grant Date Stock Fair Value		Exercise Price Less than Grant Date Stock Fair Value		Total	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Outstanding at December 31, 1999	0	\$ 0.00	15,000	\$ 4.00	30,000	\$ 9.25	45,000	\$ 7.50
Granted .....	5,000	18.00	658,500	15.02	420,500	8.39	1,084,000	12.46
Exercised .....	0	0.00	(140,000)	12.54	(75,000)	0.84	(215,000)	8.46
Cancelled .....	0	0.00	(93,000)	17.86	0	0.00	(93,000)	17.86
Outstanding at December 31, 2000	5,000	18.00	440,500	14.83	375,500	9.97	821,000	12.63
Granted .....	100,000	7.42	1,049,000	8.23	0	0.00	1,149,000	8.16
Exercised .....	0	0.00	0	0.00	0	0.00	0	0.00
Cancelled .....	0	0.00	(51,667)	12.05	0	0.00	(51,667)	12.05
Outstanding at December 31, 2001	105,000	7.92	1,437,833	10.11	375,500	9.97	1,918,333	9.97
Granted .....	0	0.00	869,653	7.80	0	0.00	869,653	7.80
Exercised .....	0	0.00	(38,813)	1.24	0	0.00	(38,813)	1.24
Cancelled .....	0	0.00	(383,262)	9.57	(65,000)	5.70	(448,262)	9.01
Outstanding at December 31, 2002	<u>105,000</u>	<u>\$ 7.92</u>	<u>1,885,411</u>	<u>\$ 9.34</u>	<u>310,500</u>	<u>\$10.86</u>	<u>2,300,911</u>	<u>\$ 9.48</u>

In March 2002, deCODE granted options to purchase 673,417 shares of common stock to employees under the 1996 Plan, including options to purchase 577,917 shares of common stock to employees in connection with the acquisition of MediChem. In July 2002, deCODE granted additional options to purchase 136,352 shares of common stock to employees in connection with the acquisition of MediChem. In August 2002, deCODE granted options to purchase 60,000 shares of common stock to a member of the Board of Directors.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table summarizes information about stock options outstanding under the 1996 Plan at December 31, 2002:

Exercise Price	Outstanding			Vested and Exercisable	
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (In Years)	Number of Shares	Weighted Average Exercise Price
\$1.00 to \$6.55 .....	541,464	\$ 3.78	8.44	288,928	\$ 3.10
\$7.42 to \$8.13 .....	822,978	7.92	8.16	459,783	7.87
\$8.65 to \$13.56 .....	567,595	11.09	8.00	315,150	11.22
\$14.94 to \$24.56 .....	368,874	18.88	7.57	301,013	19.07
\$1.00 to \$24.56 .....	<u>2,300,911</u>	<u>\$ 9.48</u>	<u>8.09</u>	<u>1,364,874</u>	<u>\$10.11</u>

deCODE records deferred compensation for employee stock options based on the difference between the exercise price and the common stock fair value on the measurement date (i.e., the date on which both the number of shares to be issued and the exercise price are fixed and determinable) and records interim estimates of deferred compensation between the grant date and the measurement date. deCODE records deferred compensation for non-employee stock options based on the grant date fair value of options granted as estimated by the Black-Scholes option pricing model. Deferred compensation is amortized and recorded as compensation expense ratably over the vesting period of the options. Stock-based compensation expense of \$3,048, \$4,598 and \$8,246 was recognized in the statements of operations during the years ended December 31, 2002, 2001 and 2000 for employee stock options, and stock-based remuneration expense of \$0, \$53 and \$24 was recognized in the statements of operations during the years ended December 31, 2002, 2001 and 2000 for non-employee stock options.

Each employee option grant generally vests twenty-five percent on the first anniversary date of an employee's commencement of employment and 1/48th of the original grant each month thereafter for the following three years. Non-employee option grants generally have not contained vesting provisions.

All options granted from inception through 1999 and two option grants in 2000 have contained a provision for early-exercise according to the terms of the Plan with company-provided financing of the exercise price made available. In almost all cases, employees took advantage of their right to early-exercise and to fund such exercise with a company-provided loan. The company-provided loans are due after a fixed term of generally four years and bear a fixed interest rate of six percent per annum. Many of the employee loans have been extended upon their due date for up to six years without additional interest. The loans become payable upon termination of employment and/or when the shares are sold.

The weighted-average grant date fair values using the Black-Scholes option pricing model were:

	For the Years Ended December 31,		
	2002	2001	2000
Exercise price greater than grant date stock fair value .....	\$ —	\$7.42	\$ —
Exercise price equals grant date stock fair value .....	5.91	8.23	9.82
Exercise price less than grant date stock fair value .....	—	—	17.65

The fair values of the options granted during 2002, 2001 and 2000 are estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions: no dividends, expected volatility of 100%, 100% and 80%, respectively; expected terms of 5.0 years for all periods; and risk-free interest rates of 4.49%, 4.39% and 5.42%, respectively.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

*Stock-Based Compensation and Remuneration*

Stock-based compensation represents the expense charged in the statements of operations relating to employee and non-employee stock options granted. Stock-based remuneration represents the expense charged in the statements of operations relating to shares of stock issued to non-employees in exchange for services provided. Stock-based compensation and remuneration are included in the statements of operations in the following captions:

	For the Years Ended December 31,		
	2002	2001	2000
	(In thousands)		
Research and development expense .....	\$2,004	\$3,314	\$4,073
General and administrative expense .....	1,044	1,337	4,614
Total .....	<u>\$3,048</u>	<u>\$4,651</u>	<u>\$8,687</u>

Included in the above is \$131 that was paid in the form of shares 20,508 of deCODE common stock that were issued in March 2002. Compensation related to these shares has been expensed in December 2001 and is included in accrued expenses at December 31, 2001.

In 2000, deCODE issued 20,000 shares of common stock to collaborators amounting to \$416 in exchange for services provided. This remuneration amount was charged to expense in the statement of operations in the year ended December 31, 2000.

In addition, general and administrative expenses in the year ended December 31, 2001 include a charitable contribution of 5,000 shares of deCODE common stock amounting to \$53 and general and administrative expenses in the year ended December 31, 2000 include charitable contributions of 150,000 shares of Series B preferred stock amounting to \$3,000 and of 8,000 shares of deCODE common stock amounting to \$194.

*Defined Contribution Benefits*

deCODE contributes to relevant pension organizations for personnel in Iceland. Certain other discretionary contributions may be made. Contributions are based on employee salaries paid and deCODE has no further liability in connection with these plans. Total contributions were \$1,928, \$1,434 and \$979 for the years ended December 31, 2002, 2001 and 2000, respectively.

Effective December 1, 2001, deCODE adopted a 401(k) pension plan available to eligible full-time employees in the United States. deCODE made contributions of \$31 and \$1 in the years ended December 31, 2002 and 2001 to this plan. Additionally, MediChem sponsors a contribution savings and investment 401(k) plan in which employees meeting minimum service requirements are eligible to participate. Participants may contribute up to 15% of their compensation. In 2002 and since the date of acquisition, deCODE contributed an amount equal to 50% of participant contributions on the first 6% of compensation totaling \$198.

*Income Taxes*

Deferred income taxes include the net effects of temporary differences between the carrying amounts for assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

deCODE's deferred tax assets (liabilities) are comprised of the following:

	December 31,	
	2002	2001
	(In thousands)	
Loss carryforwards .....	\$ 32,050	\$ 5,490
Capitalized research and development costs .....	8,031	5,064
Deferred revenue .....	2,149	1,860
Fixed asset depreciation .....	(51)	793
Intangible assets/patents .....	(1,427)	(355)
Other deferred tax assets .....	(159)	447
Total deferred tax asset, net .....	40,593	13,299
Valuation allowance .....	(40,593)	(13,299)
	<u>\$ 0</u>	<u>\$ 0</u>

The table below reconciles the expected U.S. federal income tax rate to the recorded income tax rate:

	For the Years Ended December 31,	
	2002	2001
Income taxes at federal statutory rates .....	(34.0)%	(34.0)%
State income taxes, net of federal benefit .....	(0.6)	(0.5)
Non-deductible equity compensation .....	0.4	3.5
Non-deductible goodwill amortization .....	13.8	2.2
Foreign rate differential .....	8.0	3.6
Foreign deferred tax asset adjustment .....	0.0	14.7
Foreign inflation adjustment .....	0.0	(8.1)
Foreign currency adjustment .....	(5.1)	17.0
Other .....	(0.1)	0.0
Net change in valuation allowance .....	17.6	1.6
	<u>0.0%</u>	<u>0.0%</u>

Pre-tax U.S. losses were \$65,825 and \$5,087 and pre-tax Icelandic losses were \$66,061 and \$47,360 in 2002 and 2001, respectively. As of December 31, 2002, deCODE had U.S. federal net operating loss ("NOL") carryforwards of approximately \$32,204 that may be available to offset future U.S. federal income tax liabilities and expire at various dates through 2022. Also as of December 31, 2002, deCODE's Icelandic subsidiaries had NOL carryforwards of approximately \$107,370 that begin to expire in 2006. Management has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets and has established a full valuation allowance for such assets, which are comprised principally of net operating loss carryforwards and capitalized research and experimentation costs.

Ownership changes, as defined in the Internal Revenue Code, may have limited the amount of net operating loss carryforwards that can be utilized annually to offset future taxable income. Subsequent ownership changes could further affect the limitation in future years.

In December 2001, the Government of Iceland enacted a change in the corporate tax rate from 30% to 18% with an effective date of January 1, 2002. As a result, the carrying value of the Icelandic deferred tax



deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

assets at December 31, 2001 were re-computed at the 18% rate, resulting in a decrease in deCODE's deferred tax assets and liabilities which was offset by a reduction in the tax valuation allowance of \$7,700. For Icelandic tax purposes, the Income Tax and Capital Tax Act of 1981, as amended, contains provisions that stipulate that an inflation adjustment be taken into account in the annual reporting of taxable income. For the years ended December 31, 2001 and 2002, the adjustment to taxable income was a benefit of approximately \$14,100 and \$0, respectively. For periods beginning on or after January 1, 2002, the Income Tax and Capital Tax Act was amended to remove these provisions. In the year-ended December 31, 2002 there was a foreign currency adjustment caused by strengthening of the Icelandic krona against the U.S. dollar, resulting in an increase in deferred tax assets and liabilities that was offset by a reduction in the tax valuation allowance of \$37,100. In the year-ended December 31, 2001 there was a foreign currency adjustment caused by the devaluation of the Icelandic krona against the U.S. dollar, resulting in a decrease in deferred tax assets and liabilities which was offset by a reduction in the tax valuation allowance of \$30,100.

*Selected Quarterly Data (Unaudited)*

deCODE has restated previously reported quarterly financial results for years ended December 31, 2002 and December 31, 2001 for certain revenue matters, results per share and other items. The effect of this restatement on the Statement of Operations is summarized as follows:

	For the Three Months Ended							
	March 31,		June 30,		September 30,		December 31,	
	As Previously Reported	As Restated	As Previously Reported	As Restated	As Previously Reported	As Restated	As Previously Reported	As Restated
<b>FISCAL 2002</b>								
Revenue .....	\$ 9,486	\$ 5,258	\$13,410	\$ 9,442	\$ 8,982	\$ 8,982	\$17,383	\$17,383
Operating loss .....	11,959	16,886	15,725	19,674	85,200	85,417	10,045	10,045
Net loss .....	11,194	15,867	16,832	19,708	85,694	85,439	10,872	10,872
Basic and diluted net loss per share .....	0.24	0.36	0.32	0.39	1.61	1.68	0.21	0.21
<b>FISCAL 2001</b>								
Revenue .....	5,033	5,033	6,198	6,198	9,721	8,146	10,599	6,722
Operating loss .....	18,186	14,752	13,862	14,120	9,947	11,811	10,655	16,574
Net loss .....	16,088	12,654	12,291	12,549	8,867	10,732	10,592	16,512
Basic and diluted net loss per share .....	0.37	0.31	0.28	0.30	0.20	0.26	0.24	0.39

- (1) In March 2002, deCODE completed the acquisition of MediChem Life Sciences, Inc. (MediChem) in a stock-for-stock exchange accounted for as a purchase transaction. Total consideration for the acquisition was \$85,845. deCODE Statements of Operations include the results of MediChem from March 18, 2002, the date of acquisition.
- (2) In September 2002, deCODE recorded impairment, employee termination benefits and other charges in the total amount of \$64,790.

*Restatement Items.*

*Revenue Matters.* In the fourth quarter of 2002, deCODE terminated and entered into a related settlement agreement with Applied Biosystems Group (ABG) in connection with two agreements between the parties that been in place since July 2001. In connection with this termination, deCODE reassessed its

deCODE genetics, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

previously reported accounting for its the Joint Development and Commercialization Agreement (the Agreement) with ABG to develop genotypic analysis products and has determined that revenue related to ABG's payment obligation and deCODE's development costs associated with the Agreement should be deferred until the development efforts are completed or the Agreement is terminated, if earlier. This resulted in a reduction of revenues of \$5.4 million and \$8.2 million and costs of \$0.3 and \$0.5 million previously reported in 2001 and through the first three quarters of 2002, respectively. The resulting deferred revenue and costs of \$6.3 million and \$0.8 million at September 30, 2002, respectively, were recognized in the fourth quarter of 2002 when the parties reached agreement as to termination. deCODE's previous accounting for the Agreement was to record revenue according to a percentage of completion model, where revenues were recognized on the basis of the estimated percentage of work completed in a given reporting period as compared to the total estimated work required under the Agreement. Contract costs were previously expensed as incurred.

At the same time, deCODE reached agreement with ABG as to the termination of its Reagent Supply Agreement which required deCODE to make certain minimum purchases on a quarterly basis. Settlement of the Reagent Supply Agreement had no impact on deCODE's consolidated financial results.

*Results Per Share.* deCODE has restated its basic and diluted net loss per share to correct its treatment of restricted shares that have an associated outstanding non-recourse promissory note. These shares were previously included in the determination of weighted shares outstanding for purposes of calculating basic and diluted loss per share to the extent they were vested. To the extent a promissory note received upon issuance of restricted shares is outstanding, the shares are excluded from weighted average shares outstanding. The impact of excluding all relevant restricted shares reduces the number of weighted shares outstanding and therefore increases the loss per share.

*Other.* deCODE has corrected its accounting for swaps and certain other minor items, the impact of which is a decrease of \$0.5 million and \$0.4 million in net loss for the full-year 2001 and nine-month period ended September 30, 2002, respectively. Notably, the quarterly financial results for 2001 have been impacted by the restatement in deCODE's accounting for materials and supplies.

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K/A**  
(Amendment No. 1)

Mark One

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2002

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 000-30469

**deCODE genetics, Inc.**  
(Exact name of registrant as specified in its charter)

Delaware  
(State or jurisdiction of  
incorporation or organization)

04-3326704  
(I.R.S. Employer  
Identification No.)

Sturlugata 8, IS-101 Reykjavik, Iceland  
(Address of principal executive offices)

+ 354-570-1900

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

None

Name of each exchange on which registered

None

Securities registered pursuant to Section 12 (g) of the Act:

Common Stock, \$.001 par value

(Title of Class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2). Yes ☒ No ☐

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant based on the closing price of the common stock (\$4.68 per share), as of June 28, 2002, was \$217,747,123.

Indicate the number of shares outstanding of each of the registrant's classes of common stock as of March 1, 2003.

<u>Class</u>	<u>Number of Shares</u>
Common Stock, \$.001 par value	53,566,682

Documents incorporated by reference  
None

#### EXPLANATORY NOTE

deCODE genetics, Inc. hereby amends its Annual Report on Form 10-K for the year ended December 31, 2002, as filed with the Securities and Exchange Commission on April 15, 2003, for the sole purpose of adding Items 10-13 of Part III.

### PART III

#### Item 10. *Directors and Executive Officers of the Registrant*

##### Directors

Our certificate of incorporation requires that the Board of Directors be divided into three classes. The members of each class of directors are to serve for staggered three-year terms. Class I consists of Sir John Vane, whose term will expire at the Annual Meeting of Stockholders in 2005. Class II consists of Jean-Francois Formela and Andre Lamotte, whose terms will expire at the Annual Meeting of Stockholders in 2003. Class III consists of Kari Stefansson and Terrance McGuire, whose terms will expire at the Annual Meeting of Stockholders in 2004. Each of the current directors holds office until the expiration of their respective terms and until their respective successors are elected and qualify, or until death, resignation or removal.

The name and age of each of our current directors, as well as their respective positions and the period during which each such individual has served as a director, are set forth below. Additional biographical information concerning each of the directors follows the table.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>	<u>Since</u>
Kari Stefansson(1) .....	54	Director, Chairman of the Board, Chief Executive Officer and President	1996
Terrance G. McGuire(1)(2)(3) .....	47	Director and Vice-Chairman	1996
Jean-Francois Formela(2)(3) .....	46	Director	1996
Andre Lamotte .....	54	Director	1996
Sir John Vane(2) .....	76	Director	1997

- (1) Member of Nominating Committee
- (2) Member of Audit Committee
- (3) Member of Compensation Committee

Kari Stefansson, M.D., Dr. Med. has served as our President, Chief Executive Officer and a Director since he co-founded deCODE in August 1996. Dr. Stefansson was appointed to serve as the Chairman of our Board of Directors in December 1999. He also served as our Secretary from August 1996 to March 2001. From 1993 until April 1997, Dr. Stefansson was a professor of Neurology, Neuropathology and Neuroscience at Harvard University. In addition, from 1993 through December 1996 he was Director of Neuropathology at Beth Israel Hospital in Boston, Massachusetts. From 1983 to 1993, he held faculty positions in Neurology, Neuropathology and Neurosciences at the University of Chicago. Dr. Stefansson received his M.D. and Dr. Med. from the University of Iceland in 1976 and 1986, respectively.

Terrance G. McGuire has served as a director since August 1996 and as Vice-Chairman of the Board of Directors since April 2000. He currently serves as Chairman of three board committees: the Compensation Committee, the Audit Committee and the Nominating Committee. He previously served as our assistant secretary from January 1998 to October 2000. Since March 1996, he has been a Founding General Partner of Polaris Venture Partners. Since 1992, he has served as a general partner of Alta V Management Partners L.P., which is the general partner of Alta V Limited Partnership. He is a director of Acusphere, Inc., Microbia, Inc., MicroCHIPS, Remon Medical Technologies, Transform Pharmaceuticals, Inc. and Wrenthead.com, Inc. Mr. McGuire received his B.S. in Physics and Economics from Hobart College, his M.S. in Engineering from Dartmouth College and his M.B.A. from the Harvard Business School.

Jean-Francois Formela, M.D. has served as a director since August 1996, and as a member of our Audit Committee since February 1998. Dr. Formela is a Senior Principal of Atlas Venture. Before joining Atlas Venture in 1993, Dr. Formela was Senior Director, Medical Marketing and Scientific Affairs at Schering-Plough in the U.S. where he also held biotechnology licensing and marketing responsibilities. Dr. Formela is a

director of Exelixis, Inc., Nuvelo, Inc. and several private companies. Dr. Formela holds an M.D. from Paris University School of Medicine and an M.B.A. from Columbia Business School.

Andre Lamotte has served as a director since August 1996. In 1989, Dr. Lamotte founded Medical Science Partners, or MSP, which specializes in early stage life sciences investments, in affiliation with Harvard University, and has served as the Managing General Partner since then. Before founding MSP, Dr. Lamotte served as a General Manager at Pasteur Merieux from April 1983 to April 1988. He also currently serves as the Managing General Partner of Medical Science Partners II, L.P. and Medical Science II Co-Investment, L.P. and is the General Partner of New Medical Technologies. Dr. Lamotte holds a Ph.D. in chemistry from the Massachusetts Institute of Technology and an M.B.A. from Harvard University.

Sir John Vane has served as a director since January 1997. In 1982, Sir John received the Nobel Prize in Physiology or Medicine for his work in prostaglandins and for discovering the mode of action of aspirin. As a consultant to Squibb, he initiated the program on inhibiting angiotensin-converting enzyme which led to the marketing of Captopril. During 12 years as Director of Research and Development at the Wellcome Foundation, he oversaw the development of Tracrium, Flolan, Zovirax and Lamictal. In 1986, he founded the William Harvey Research Institute and built the Institute to over 100 members, first as Chairman, then as Director General, and, since 1997, as Honorary President. Sir John graduated with a degree in Chemistry from Birmingham University, obtained a D.Phil and D.Sc in Pharmacology from Oxford University, and spent 20 years in academic research. Sir John acts as a consultant to, and board member of, several pharmaceutical and biopharmaceutical companies. Sir John also has served as a director of Vane Associates since 1997. He became a Fellow of the Royal Society in 1974, was knighted in 1984 and has received numerous other honorary fellowships and doctorates.

#### Executive Officers Who Are Not Directors

The name, age and position of each person who is currently serving as an executive officer (but not also as a director) is listed below, followed by summaries of their backgrounds and principal occupations. Executive officers are elected annually, and serve at the discretion of the Board of Directors.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Hannes Smarason .....	35	Executive Vice President and Senior Business Officer
Lance Thibault .....	36	Chief Financial Officer and Treasurer
Hakon Gudbjartsson .....	37	Vice President, Informatics
Jeffrey Gulcher .....	43	Vice President, Research and Development
Mark Gurney .....	48	Vice President, Drug Development
Michael Young .....	51	Vice President, Business Development

Hannes Smarason has served as our Executive Vice President and Senior Business Officer (formerly Senior Business and Finance Officer) since March 2000. From March 1999 to March 2000, he served as our Senior Vice President, Chief Business Officer and Treasurer, and, from January 1997 to March 1999, he served as our Chief Financial Officer and Vice President, Business Development. Before joining us, he worked with McKinsey & Co. in Boston from 1992 through December 1996 as a consultant. Mr. Smarason received his B.S. in Mechanical Engineering and Management from the Massachusetts Institute of Technology and his M.B.A. from the Massachusetts Institute of Technology Sloan School of Management.

Lance Thibault joined deCODE in February 2001 and was named Chief Financial Officer and Treasurer in June 2001. Before joining us, he was a Director with the Global Capital Markets practice of PricewaterhouseCoopers in London, England. Mr. Thibault received a B.S. in Accountancy from Bentley College in 1988 and is a CPA.

Hakon Gudbjartsson, Ph.D. has served as our Vice President, Informatics since March 2000. In 1996, Dr. Gudbjartsson joined us to direct our Department of Informatics. Dr. Gudbjartsson received his B.Sc. in electrical engineering in 1990 and his M.Sc. in electrical engineering and computer science in 1992 from the

University of Iceland. In 1996, he received his Ph.D. from the Massachusetts Institute of Technology and performed post-doctoral research concerning magnetic resonance imaging at Brigham and Woman's Hospital in Boston until he joined us.

Jeffrey Gulcher, M.D., Ph.D. has served as our Vice President, Research and Development since he co-founded the company in August 1996. Dr. Gulcher was on staff in the Department of Neurology at Beth Israel Hospital in Boston, Massachusetts and Harvard University Medical School from June 1993 to October 1998. Dr. Gulcher received his Ph.D. and M.D. from the University of Chicago in 1986 and 1990, respectively, and completed his neurology residency at the Longwood Program of the Neurology Department of the Harvard Medical School in 1996.

Mark Gurney, Ph.D. has served as our Vice President, Drug Development since August 2002. He joined us in August 2000 and was elected our Vice President, Pharmaceutical Discovery in October 2000. He was formerly Director, Genomics Research at Pharmacia Corporation. Prior to his positions at Pharmacia, Dr. Gurney held academic appointments in the Department of Pharmacological and Physiological Sciences at the University of Chicago and in the Department of Cell, Molecular and Structural Biology at the Northwestern University Medical School. He received his B.A. in Biology from the University of California at San Diego in 1975 and his Ph.D. from the California Institute of Technology in 1980. In 1994, he completed his M.B.A. at Northwestern University's Kellogg School of Management.

Michael W. Young was elected to serve as our Vice President, Business Development in June 2001. Prior to joining deCODE, Mr. Young had been Vice President of Commercial Development for GTC, a subsidiary of Genzyme Corporation, since 1995. Mr. Young has held marketing, sales and business development positions with other emerging biotech and biopharm companies, including Millipore Corporation, Ventrex Laboratories, Verax Corporation and PerSeptive Biosystems. Subsequent to military service, Mr. Young completed his BA in biology from Canisius College in 1974, attended the University of Miami and Nova University (MS 1976) and attended graduate school at the Harvard University School of Public Health, Department of Nutrition.

#### **SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE**

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our executive officers and directors and persons who beneficially own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the Securities and Exchange Commission and the Nasdaq National Market. Based solely upon our review of the copies of such Forms 3 and 4 we have received during the most recent fiscal year and Form 5 and amendments thereto furnished to us, we believe that all of our directors, officers and greater than 10% stockholders have timely filed all required reports.

# Item 11. *Executive Compensation*

The following table sets forth information concerning the annual and long-term compensation for services to us for each of the fiscal years ended December 31, 2000, 2001 and 2002 of those persons who served as (i) our chief executive officer during 2002 and (ii) our other four most highly compensated executive officers who were serving as such as of December 31, 2002 (the "Named Executive Officers"):

Summary Compensation Table

Name and Principal Position	Year	Annual Compensation		Bonus	Long-Term Compensation		All Other Compensation(1)
		Salary(1)			Stock Option Awards (Number of Shares Underlying Options)		
Kari Stefansson .....	2002	\$443,585		—	—		\$67,677(2)
Chairman, President, Chief	2001	372,597		\$130,000(3)	—		45,062(2)
Executive Officer and Secretary	2000	267,930		—	—		38,864(2)
Hannes Smarason.....	2002	\$252,673		—	—		—
Executive Vice President	2001	204,696		71,000(3)	—		—
and Senior Business Officer	2000	125,896		\$100,000	—		—
Jeffrey Gulcher.....	2002	\$238,110		—	—		\$11,436(2)
Vice President, Research	2001	203,096		\$ 69,445(4)	—		12,215(2)
and Development	2000	150,000		50,000	—		—
Mark Gurney(5) .....	2002	\$251,707		—	—		\$ 9,030(2)
Vice President,	2001	148,714		\$ 65,000(4)	—		10,498(2)
Drug Development	2000	55,346		—	—		1,224(2)
Michael Young(6).....	2002	\$235,000		—	—		—
Vice President, Business	2001	137,083		\$ 48,500(4)	100,000		—
Development							

- (1) Includes, except with respect to Mr. Young, compensation paid in Icelandic kronas. Figures reflect exchange rates of 80.77 for 2002, 103.20 for 2001 and 84.70 for 2000 Icelandic kronas to \$1.00, the exchange rates determined by the Central Bank of Iceland on December 31, 2002, 2001 and 2000, respectively.
- (2) Includes the value of housing and an automobile provided by us for the benefit of the Named Executive Officer.
- (3) Represents bonus paid to individual in December 2002 for services rendered in 2001.
- (4) Represents bonus paid to individual in March 2002 for services rendered in 2001.
- (5) Mr. Gurney was elected in October 2000.
- (6) Mr. Young was elected in June 2001.

## Option Grants in Last Fiscal Year

There were no grants of stock options to the Named Executive Officers during the fiscal year ended December 31, 2002.



### Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

<u>Name</u>	<u>Shares Acquired on Exercise (#)</u>	<u>Value Realized</u>	<u>Number of Securities Underlying Unexercised Options at December 31, 2002 Exercisable/Unexercisable</u>	<u>Value of Unexercised in-the-Money Options at December 31, 2002(1) Exercisable/Unexercisable</u>
Kari Stefansson .....	—	—	— / —	— / —
Hannes Smarason .....	—	—	— / —	— / —
Jeffrey Gulcher .....	—	—	— / —	— / —
Mark Gurney .....	—	—	70,000 / 50,000	— / —
Michael Young .....	—	—	50,000 / 50,000	— / —

(1) Based on the closing price on The Nasdaq Stock Market at December 31, 2002 of \$1.85.

### Compensation Arrangements

#### *Director Compensation*

Except as set forth below, our directors do not receive cash compensation for services on our Board of Directors or any board committee. We do, however, reimburse all directors for their expenses incurred in connection with attendance at Board of Directors and committee meetings.

Pursuant to the terms of an agreement dated August 30, 2002 between deCODE and Vane Associates (of which Sir John Vane is a partner), Vane Associates receives (i) \$12,000 for each year Sir John serves as a director, and (ii) \$3,000 for each board meeting that Sir John attends and for each other day on which Sir John provides services to deCODE. In addition, we granted Sir John an option to purchase 60,000 shares of our common stock. The option vests in equal annual installments over three years commencing August 30, 2003 and has an exercise price equal to the closing price of deCODE's common stock on the date of grant. In addition, we reimbursed Vane Associates for its legal expenses incurred to review, negotiate and amend its agreement with us.

#### *Employment Agreements*

At the time of commencement of employment, our executive officers generally receive offer letters specifying basic terms and conditions of their employment. We have entered into an employment agreement with Mr. Young which stipulates that if we terminate his employment other than for "cause": (a) we are required to make a lump sum severance payment to him equal to one year of his base salary then in effect; and (b) options to purchase the lesser of (i) 20,000 shares of our common stock or (ii) the number of shares of our common stock underlying his remaining unvested options, shall become immediately exercisable. Pursuant to the terms of his agreement, Mr. Young's base salary is \$235,000 per year, and he is eligible for a bonus at the determination of the Compensation Committee.

Our executive officers have signed agreements which require them to maintain the confidentiality of our information and to assign inventions to us. These agreements also prohibit these officers from competing with us during the terms of their employment and for a certain period thereafter by engaging in any capacity in any business which is, or on the date of termination of their employment was, competitive with our business.

#### *Defined Contribution Plans*

In accordance with applicable Icelandic law, deCODE contributes to relevant pension organizations for personnel in Iceland. Certain other discretionary contributions may be made. Contributions are based on employee salaries paid and deCODE has no further liability in connection with these plans. Total contributions of \$2,063,017 were made for the year ended December 31, 2002.

Effective December 1, 2001, deCODE adopted a 401(k) plan (the "deCODE 401(k) Plan") available to eligible full-time employees in the United States. Additionally, deCODE's wholly owned subsidiary,

MediChem LifeSciences, Inc., sponsors a contribution savings and investment 401(k) plan (the "MediChem 401(k) Plan and collectively with the deCODE 401(k) Plan, the "401(k) Plans") in which employees meeting minimum service requirements are eligible to participate. Pursuant to the 401(k) Plans, employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit (\$12,000 in 2003) and have the amount of such reduction contributed to the 401(k) Plan. Each of the 401(k) Plans requires that we make additional matching contributions on behalf of participants at a rate of 50% of employee contributions up to a maximum of 6% of their base salary. Contributions by employees to the 401(k) Plans and income earned on such contributions are not taxable to employees until withdrawn from the 401(k) Plans. deCODE made contributions of \$30,546 in the year ended December 31, 2002 to the deCODE 401(k) Plan. In 2002 and since the date of acquisition, deCODE contributed an amount equal to \$198,474 to the MediChem 401(k) Plan.

#### Compensation Committee Interlocks and Insider Participation

The current members of our Compensation Committee are Mr. McGuire and Dr. Formela each of whom served on the Compensation Committee of the Board of Directors during 2002. Mr. McGuire served as deCODE's assistant secretary from January 1998 until October 2000. Otherwise, no member of the Compensation Committee was at any time during 2002, or formerly, an officer or employee, and no member of the Compensation Committee had any relationship with us requiring disclosure under Item 404 of Regulation S-K under the Exchange Act of 1934, as amended. No executive officer has served as a director or member of the Compensation Committee (or other committee serving an equivalent function) of any other entity whose executive officers served as a director of deCODE or a member of our Compensation Committee.

#### Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The following table sets forth certain information as of April 15, 2003, except as otherwise noted, regarding the beneficial ownership of our common stock by (i) each current director, (ii) each Named Executive Officer, (iii) all of our directors and executive officers as a group, and (iv) each person known to be the beneficial owner of more than five percent of the outstanding shares of the common stock.

<u>Name And Address of Beneficial Owner</u>	<u>Amount and Nature of Beneficial Ownership(1)</u>	<u>Percent of Outstanding Common Stock(2)</u>
SAPAC Corporation Ltd(3) ..... 124 Grenzacherstrasse CH-4070 Basel	4,483,334	8.3%
Kari Stefansson ..... c/o deCODE genetics, Inc. Sturlugata 8 Reykjavik, Iceland	3,125,292	5.8%
Hannes Smarason.....	560,000	1.1%
Jeffrey Gulcher.....	481,200	*
Mark Gurney(4) .....	82,500	*
Michael Young(5) .....	60,000	*
Jean-Francois Formela(6) .....	2,340,082	4.4%
Terrance G. McGuire(7) .....	888,412	1.7%
Andre Lamotte(8) .....	160,740	*
Sir John Vane(9).....	60,000	*
All directors and executive officers as a group (11 persons)(10) ...	7,914,893	14.8%

\* Comprises less than one percent of the outstanding common stock.

- (1) The number of shares beneficially owned by the individuals and entities listed in the table is determined in accordance with the rules of the United States Securities and Exchange Commission, and may not be conclusive as to ownership of those securities for any other purpose. Under those rules, an individual (or entity) is deemed to beneficially own shares of common stock as to which the individual currently has certain sole or shared powers or as to which the individual can acquire such powers within 60 days by the exercise of any option, warrant or other right. We have been advised that each stockholder listed in the table has sole voting and dispositive power with respect to such shares unless otherwise noted in the footnotes below.
- (2) Applicable percentage of ownership is based on 53,506,724 shares of common stock outstanding on April 15, 2003.
- (3) SAPAC is successor-in-interest to Roche Finance Ltd. Includes 4,066,667 shares of common stock and 416,667 shares of common stock issuable upon exercise of warrants owned by SAPAC. Roche Holdings Ltd exercises voting and investment control over the shares held by SAPAC.
- (4) Represents shares of common stock issuable upon exercise of options held by Mr. Gurney.
- (5) Represents shares of common stock issuable upon exercise of options held by Mr. Young.
- (6) Includes (a) 1,042,541 shares of common stock owned by Atlas Venture Fund II, L.P., and 125,000 shares of common stock issuable upon exercise of warrants owned by Atlas Venture Fund II, L.P., and (b) 1,042,541 shares of common stock owned by Atlas Venture Europe Fund B.V., and 125,000 shares of common stock issuable upon exercise of warrants owned by Atlas Venture Europe Fund B.V., a wholly owned subsidiary of Atlas Investering Groep N.V., which is a limited partner in Atlas Venture Fund II L.P. The voting and investment discretion over the shares held by Atlas Venture Fund, II, L.P. is exercised by the general partners of Atlas Venture Associates, II, L.P., its sole general partner. Dr. Formela is a general partner of Atlas Venture Associates II, L.P. along with Barry J. Fidelman and Christopher J. Spray. Dr. Formela and the other general partners of Atlas Venture Associates II, L.P. disclaim beneficial ownership of all shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein. The voting and investment discretion over the shares held by the Atlas Venture Europe Fund B.V. is exercised by the managing directors of AIG, Gerard H. Montanus and Hans Bosman.
- (7) Includes (a) 582,854 shares of common stock owned by Polaris Venture Partners, L.P. and 189,496 shares of common stock issuable upon exercise of warrants owned by Polaris Venture Partners, L.P., (b) 33,931 shares of common stock owned by Polaris Venture Partners Founders' Fund, L.P. and 11,337 shares of common stock issuable upon exercise of warrants owned by Polaris Venture Partners Founders' Fund, L.P., and (c) 70,794 shares of common stock held by Terrance McGuire TTEE, Terrance McGuire Trust — 1999. Polaris Venture Management Co., L.L.C., the general partner of both Polaris Venture Partners, L.P. and Polaris Venture Partners Founders' Fund, L.P., exercises sole voting and investment power with respect to the shares held by the funds. Mr. McGuire is a member of Polaris Venture Management Co., L.L.C., and as such may be deemed to share voting and investment power for the shares held by the funds.
- (8) Includes 158,745 shares of common stock held by Medical Science II Co-Investment, L.P. and 1,995 shares of common stock held by Medical Science Management Co., Inc. Mr. Lamotte is the Managing General Partner of Medical Science II Co-Investment, L.P. and President of Medical Science Management Co., Inc.
- (9) Includes 30,000 shares of common stock and 30,000 shares of common stock issuable upon exercise of options held by Sir John.
- (10) Includes an aggregate of 7,234,893 shares of common stock and 680,000 of shares of common stock underlying warrants and stock options granted to all directors and executive officers as a group which will have vested within sixty days after April 15, 2003 (of which 100,000 shares of common stock and 56,667 shares of common stock underlying options are held by executive officers who are not named executive officers).

### Equity Compensation Plan Information

The following table sets forth information concerning the number of outstanding options, the weighted average exercise price of those securities and the number of securities remaining to be granted under existing equity plans, whether approved or not approved by security holders, as of December 31, 2002. The purpose of this table is to illustrate the potential dilution that could occur from past and future equity grants.

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights</u>	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights</u>	<u>Number of Securities Remaining Available for Future Issuance Under Existing Equity Compensation Plans</u>
Equity compensation plans approved by security holders .....	2,300,911	\$9.48	3,531,276
Equity compensation plans not approved by security holders .....	N/A	N/A	N/A
Total .....	2,300,911	\$9.48	3,531,276

#### Item 13. *Certain Relationships and Related Transactions*

In January 1998 and August 1999, we granted to Hannes Smarason, our Executive Vice President and Senior Business Officer, options to purchase 300,000 and 260,000 shares of our common stock, respectively. Mr. Smarason exercised his options pursuant to an early exercise right. At the times of exercise, Mr. Smarason delivered to us promissory notes in the principal amounts of \$59,700 and \$1,462,240. Each of these promissory notes bore interest in the amount of six percent (6%) per annum. Mr. Smarason's promissory note in the principal amount of \$59,700, as initially issued and as amended in March 1999, was due and payable on January 1, 2001. Such promissory note was amended and restated as of January 1, 2001 to provide that no additional interest would accrue following such date and to extend the term of the note to January 1, 2007. Mr. Smarason's other promissory note is due and payable on November 1, 2003. The shares that Mr. Smarason purchased in 1999 vest at the rate of  $\frac{1}{48}$  on the first day of each month, commencing December 1, 1999. As of April 15, 2003, the principal and accrued interest on the notes that Mr. Smarason delivered in 1998 and 1999 was \$70,798 and \$1,699,800.

In January 1998, we granted to Hakon Gudbjartsson, our Vice President, Informatics, options to purchase 100,000 shares of our common stock. Dr. Gudbjartsson exercised his options pursuant to an early exercise right. At the time of exercise, Dr. Gudbjartsson delivered to us a promissory note in the principal amount of \$19,900. The promissory note bears interest in the amount of six percent (6%) per annum. Dr. Gudbjartsson's promissory note, as initially issued and as amended in March 1999, was due and payable in October 2000. Such promissory note was amended and restated as of October 1, 2000, to provide that no additional interest would accrue following such date and to extend the term of the note to October 1, 2006. On May 27, 2002, we granted Dr. Gudbjartsson an additional loan of \$201,218.18 payable on May 27, 2006. Dr. Gudbjartsson delivered to us a second promissory note in the principal amount of \$201,218.18, which bears interest at a rate of six percent (6%) per annum. Both notes are secured by a pledge of all of Dr. Gudbjartsson's shares of deCODE stock. As of April 15, 2003, the principal and accrued interest on the notes that Dr. Gudbjartsson delivered in 1998 and 2002 were \$23,370.58 and \$209,566, respectively.

Kari Stefansson, our Chairman, Chief Executive Officer and President, and Hannes Smarason our Executive Vice President and Senior Business Officer, are beneficial owners of 17.8% and 19.7%, respectively, of the outstanding shares of Prokaria ehf., an Icelandic company. On October 2, 2000, Islensk erfðagreining ehf. and Prokaria entered into a research collaboration and license agreement on terms we believe to be no less favorable than those we could have obtained from an unrelated third party. Under the terms of the agreement, we sold certain intellectual property rights relating to thermophilic organisms, including a patent application, to Prokaria in exchange for cash, royalties on any revenues Prokaria may receive from the rights related to the patent application, and a non-transferable license regarding rights arising under the patent application during the term of the patent. In addition, we agreed to provide certain sequencing and advisory services to Prokaria

in exchange for appropriate fees. During the fiscal year ended December 31, 2002, we recognized \$102,555 in revenue with respect to such services.

# SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized this 30th day of April 2003.

DECODE GENETICS, INC.

By:           /s/ KARI STEFANSSON            
Kari Stefansson  
*Chairman, President and*  
*Chief Executive Officer*

### CERTIFICATIONS

I, Kari Stefansson, Chief Executive Officer, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K of deCODE genetics, Inc.; and
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report.

/s/ KARI STEFANSSON

Kari Stefansson  
*Chief Executive Officer*

Dated: April 30, 2003

I, Lance E. Thibault, Chief Financial Officer, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K of deCODE genetics, Inc.; and

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report.

/s/ LANCE E. THIBAUT

Lance E. Thibault  
*Chief Financial Officer*

Dated: April 30, 2003



## CORPORATE INFORMATION

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### BOARD OF DIRECTORS

**Kári Stefánsson**  
Chairman, President and  
Chief Executive Officer  
deCODE genetics Inc.

**Terrance G. McGuire**  
General Partner  
Polaris Venture Partners  
and Alta V Management  
Partners L.P.

**Sir John Vane**  
Nobel Laureate  
Honorary President  
William Harvey Research  
Institute

**André Lamotte**  
Managing General  
Partner  
Medical Science Partners

**Jean-Francois Formela**  
General Partner  
Atlas Venture Associates  
II, L.P.

### COMPANY OFFICERS

**Kári Stefánsson**  
Chairman, President and  
Chief Executive Officer

**Hannes Smárason**  
Executive Vice President  
and Senior Business  
Officer

**Lance Thibault**  
Chief Financial Officer  
and Treasurer

**Jeffrey Gulcher**  
Vice President  
Research and  
Development

**Mark Gurney**  
Vice President  
Pharmaceutical  
Discovery

**Michael Young**  
Vice President  
Business Development

### CORPORATE HEADQUARTERS

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**IS-101 Reykjavik**  
**ICELAND**  
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Fax +354 570 1903  
[www.decode.com](http://www.decode.com)

**Transfer Agent and Registrar**  
The Bank of New York  
101 Barclay Street 11W  
New York, NY 10007  
Tel 1-800-524-4458

**Form 10-K and Annual Reports**  
Additional copies of the Annual  
Report on Form 10-K, as filed  
with the Securities and Exchange  
Commission, are available at no  
charge by calling +354 570 1900  
or by writing to:

**deCODE genetics, Inc.**  
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ICELAND



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